

**A QUESTION OF METHOD: ARCHITETTURA RAZIONALE AND THE XV
MILAN TRIENNALE OF 1973**

A Dissertation

by

PASQUALE DE PAOLA

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December 2011

Major Subject: Architecture

A Question of Method:

Architettura Razionale and the XV Milan Triennale of 1973.

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Approved by:

Chair of Committee,	Frances L. Downing
Committee Members,	Peter T. Lang
	Valerian Miranda
	Manuela Marchesini
Head of Department,	Ward V. Wells

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ABSTRACT

A Question of Method: Architettura Razionale and
the XV Milan Triennale of 1973. (December 2011)

Pasquale De Paola, B.Arch., Louisiana State University;

M.S., Columbia University GSAPP

Chair of Advisory Committee: Dr. Frances Downing

My doctoral work aims to construct a theoretical and intellectual framework to understand a set of remarkable developments concerning the Italian discourse on architecture from the early 1950s to the mid 1970s. This was when the term Rationalism and its theoretical body of work acquired renewed prestige replacing the ephemeral aesthetic of the modernist movement with a grounded discourse based on a deep understanding of the city as background of all architectural artifacts.

The main hypothesis of my research is that this return to a rational methodology characterized by a deep understanding of architecture's internal building logic and identifiable in the work and ideas expressed in the International section of the XV Triennale Exhibition of 1973 had a significant and lasting impact on the thinking and formation of architecture culture in Italy and worldwide.

This dissertation will thus attempt to construct a matrix of historical and methodological associations and demonstrations that validate and legitimize that rational methodology through a close examination of the work and key concepts of *Tendenza*, a

group of architects in the Italy of the 1960s, pointing out their importance in preparing the ground for the International section of the XV Triennale Exhibition of 1973, which represented a major point of arrival and a point of departure for architecture culture in Italy and worldwide.

It is dismal coming home, when there is nobody to welcome one!
- Ann Radcliffe

I dedicate this dissertation to my wonderful family particularly to my understanding and patient wife, Kimberly. You did indeed marry to a professional student. I also want to dedicate my work to our precious daughter Maria, who is the joy of our lives. Her energy and cheerfulness have been my best motivation.

I must also thank my loving family in Italy who has always given me their fullest support, and who has always believed in my diligence and pursuit of academic excellence. I could not have accomplished anything without their unconditional love and trust.

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No doctoral student works alone. Many people have helped in the writing of this dissertation, not all of them always knowingly, and not all of them conscious of my future academic undertaking.

During in the early 90s, I was a young architecture student at the *Università degli Studi di Napoli Federico II*. There, I learned of the importance of typological and morphological research in architectural design, and I also started thinking of the necessity for a new methodological tendency based on Rossi's theoretical investigation. From those years, I would like to thank Prof. Sandro Raffone, Prof. Uberto Siola, Prof. Giuliano Di Mauro, and Prof. Cesare de Seta for their input on historical and architectural design issues.

In June of 2005, I began my academic career at Columbia University GSAPP; this is where the question of *Tendenza* was once again raised. Particularly, I would like to thank Prof. Bernard Tschumi, Prof. Mark Wigley, and Prof. Kenneth Frampton for helping identifying the initial stages of my dissertation, and also for stimulating my mounting theoretical anxiety. Their continuous questioning of the current state of Italian architecture has indeed helped framing my historical and theoretical domain. I would also like to thank Prof. David Grahame Shane for his wise guidance, Prof. Brian McGrath for believing in my early proposal and, most importantly, for donating the original book of the XV Milan Triennale Exhibition of 1973, and Alessandro Cimini for

addressing the importance and relevance of the work of Saverio Muratori to my academic research.

The path of my work has been quite complex once I started my academic journey at Texas A&M. Thus, I would like to thank my committee chair, Dr. Frances Downing for addressing preliminary issues of research methodology and philosophical approach. I would also like to thank the current members of my committee, Dr. Peter Lang for his knowledgeable and prompt insights on the post war Italian architectural culture, and for being a precious advisor when my research was going nowhere. This work would not be nearly as good without your feedback and insights. From the Department of European and Classical Languages and Culture, I would like to thank Professor Manuela Marchesini for her valuable advice and profound knowledge of those critical aspects of Italian culture of the Nineteenth and Twentieth centuries that have surfaced in my doctoral work. I would also like to thank Dr. Michael Neuman for his interdisciplinary guidance and support throughout the course of this research and for believing that cities, as a planned artifact, still matter. A particular thanks goes to Dr. Valerian Miranda for keeping my work more pragmatic and less rhetorical, and specifically for helping me with a teaching assistantship when the school could not afford my services anymore. I would not be here without your help. I truly want to thank them all for always trusting my judgment and work ethic.

I also profoundly benefited from my experience as an instructor and lecturer while at Texas A&M. From the faculty, I would like to acknowledge Prof. Brian Dougan, Prof. Marcel Erminy, Prof. Craig Babe, and Dr. Glen Mills. Thank you for

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During my final year of residency at Texas A&M, I landed a tenure-track position at Louisiana Tech University School of Architecture where I am currently employed; thus, I would like to thank Prof. Karl Puljak, the Director of the School of Architecture, for his support and for facilitating my transition to full-time academic, and Associate Dean and Prof. Bill Willoughby for our frequent and exciting conversations about architectural theory, but most importantly for his valuable and prompt feedback. I would also like to thank all my colleagues there for creating a vibrant and challenging work environment.

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At the end of this journey, I have found myself strangely in agreement with Peter Eisenman; after four years of research, I have finally learned “how to sit still.”

TABLE OF CONTENTS

	Page
ABSTRACT	iii
DEDICATION	v
ACKNOWLEDGEMENTS	vi
TABLE OF CONTENTS	ix
LIST OF FIGURES	xi
 CHAPTER	
I INTRODUCTION.....	1
Introduction: What, How, and Why	1
Philosophical and Theoretical Stance	3
Significance of Study	8
Research Method.....	16
A New Kind of History	18
Chapters Outline.....	21
II POINT OF DEPARTURE: RATIONALISM AND AUTONOMY	23
Preamble: Rational Architecture and the XV Triennale of Milan	23
Continuity of Rational Methodology in Architecture	27
The Architecture of the Enlightenment.....	31
From <i>Protorazionalismo</i> to an Architecture of <i>Tendenza</i>	41
Framing the Concept of Autonomy.....	53
Between Linguistics and Architecture	55
III A COMMON TENDENCY	67
The State of Italian Architecture after the Second World War	67
The Origins of <i>Tendenza</i>	72
Ernesto Rogers and <i>Casabella Continuità</i>	83
Giuseppe Samonà and the IUAV of Venice.....	98
Ludovico Quaroni and the Roman School	109

CHAPTER		Page
IV	THE CITY AS BACKGROUND OF A NEW METHODOLOGY...	116
	A New Didactic: <i>Caratteri Distributivi degli Edifici</i>	116
	Saverio Muratori's Typological Studies	122
	CLUVA and CLUP Readers on Typology and Morphology	139
V	TENDENZA'S INTELLECTUAL PRODUCTION.....	156
	<i>Origini e Sviluppo della Città Moderna</i> by Carlo Aymonino.....	156
	<i>L'Architettura della Città</i> by Aldo Rossi	163
	<i>La Costruzione Logica Dell'Architettura</i> by Giorgio Grassi	170
	The Consolidation of a Method and Other Writings	181
VI	POINT OF ARRIVAL: THE XV TRIENNALE OF 1973	191
	Introduction to the XV Triennale: A Brief History	191
	<i>Architettura-Città</i> : An Analysis of the Work Exhibited	198
	Avant-Garde and New Architecture: <i>La Tendenza</i>	238
VII	CONCLUSION.....	246
	Post XV Triennale: Intellectual Articulations and Legacy	246
	The Rational Idea: Conclusions	263
	REFERENCES.....	275
	APPENDIX A	287
	APPENDIX B	291
	APPENDIX C	308
	APPENDIX D	309
	VITA	310

LIST OF FIGURES

	Page
Figure 1 Front cover of <i>Architettura Razionale</i>	24
Figure 2 Abbè Laugier, <i>The Primitive Hut</i>	35
Figure 3 Composition in General, Plate 9, J.N.L. Durand	38
Figure 4 Volume One, Plate 20, J.N.L. Durand	39
Figure 5 Composition in General, Plate 11 from J.N.L. Durand	40
Figure 6 Palais Stoclet, by Joseph Hoffmann, 1911.	42
Figure 7 Hendrik Petrus Berlage: Amsterdam Stock Exchange	44
Figure 8 Gunnar Asplund: Stockholm Public Library, Main Entrance.....	45
Figure 9 Heinrich Tessenow: Festspielhaus Hellerau in Dresden.....	48
Figure 10 Giovanni Muzio, Ca'Brutta, Milan, Detail of the Façade	50
Figure 11 Sebastiano Serlio, Studies of Floor Plan Anomalies	63
Figure 12 Charles Moore, Piazza D'Italia, New Orleans.....	66
Figure 13 Aldo Rossi, <i>L'Architettura Della Citta</i>	71
Figure 14 B.B.P.R., Torre Velasca, Milano	92
Figure 15 <i>Casabella Continuità</i> n. 276, Progetti di Architetti Italiani.....	95
Figure 16 Giuseppe Samoná, <i>Teoria della Progettazione Architettonica</i>	103
Figure 17 Giambattista Nolli, Nolli Map of Rome, 1748	130
Figure 18 Saverio Muratori, <i>Studi per un Operante Storia di Venezia: TAV XI</i>	131
Figure 19 Saverio Muratori, <i>Studi per un Operante Storia di Venezia: TAV XII</i> ..	132
Figure 20 Saverio Muratori, <i>Studi per un Operante Storia di Venezia: TAV XIII</i> ..	133

	Page
Figure 21 Saverio Muratori, <i>Studi per un Operante Storia di Venezia: TAV XIV</i> ..	134
Figure 22 Walter Gropius, <i>Dammerstock Siedlung</i> , Karlsruhe, Germany, 1928...	153
Figure 23 Carlo Aymonino, <i>Origini e Sviluppo della Città Moderna</i>	158
Figure 24 Arles Amphitheater, in Aldo Rossi, <i>L'Architettura dell Città</i>	168
Figure 25 Alexander Klein: Studies for an optimal residential distribution	178
Figure 26 Pierre Le Muet: "The way to build for persons of every degree"	179
Figure 27 Giancarlo De Carlo: XIV Triennale of 1968	195
Figure 28 XV Triennale of 1973: Floor Plans.....	199
Figure 29 XV Triennale: Sala degli Omaggi	208
Figure 30 XV Triennale of 1973: Hans Schmidt, Public Housing studies, Basel..	209
Figure 31 XV Triennale of 1973: Peter Eisenman, House I, 1957	215
Figure 32 XV Triennale of 1973: Superstudio, Six Houses.....	216
Figure 33 XV Triennale of 1973: Thesis Projects: Pavia.....	220
Figure 34 XV Triennale of 1973: Thesis Projects: Pavia.....	221
Figure 35 XV Triennale of 1973: Roma Est by Carlo Aymonino	224
Figure 36 XV Triennale of 1973: Quartiere Montecalvario, Naples	227
Figure 37 XV Triennale: The city as a repository of architectural lessons.....	228
Figure 38 XV Triennale of 1973: A Proposal for the Stadthausanlage, Zurich...	230
Figure 39 XV Triennale of 1973: <i>La Città Analoga</i> , by Arduino Cantafora	234
Figure 40 Gallarate Housing Complex	244
Figure 41 Casa dello Studente di Chieti, by Giorgio Grassi, 1976	253

	Page
Figure 42 Highgate Pavilions, by Demetri Porphyrios	267
Figure 43 Villanova House, Duany & Plater-Zyberk, 1984	268

CHAPTER I

INTRODUCTION

“There is a moment (though not always) in research when all the pieces begin to fall into place, as in a jig-saw puzzle. But unlike the jig-saw puzzle, where all the pieces are near at hand and only one figure can be assembled, in research only some of the pieces are available, and theoretically more than one figure can be made from them.”¹

Adriano Prosperi

“Ma questo libro, come ogni progetto, si preoccupa soprattutto delle relazioni che si stabiliscono tra i fatti; è pensabile che queste relazioni rendano il materiale più omogeneo nella prospettiva di costruire un unico progetto.”²

Aldo Rossi

Introduction: What, How, and Why

Research in Architectural history involves a great understanding of design theory and criticism. Within this domain, this dissertation analyzes issues of design methodology within the Italian context, and it does so by critically framing the concepts and methodologies of *Tendenza*, an ideological discourse cultivated by a group of Lombard and Venetian Architects in the Italy of 1950s and 1970s as a response to a crisis of ideology. During those prolific years, Italian architecture and its theoretical

This dissertation follows the style of *Journal of Architectural Education*.

¹ Adriano Prosperi, *Giochi di Pazienza: Un Seminario sul Beneficio di Cristo* (Torino: Einaudi, 1975).

² But this book, just like any project, is concerned about the relationships between events; it is thinkable that those relationships might make the material more homogeneous in order to construct a single architectural discourse; (my translation), in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 13.

discourse based on a rigorous analysis of typological studies had become the basis of comparison for theoretical and planning research worldwide.³

However, toward the beginning of the 90s, the production of Italian design had gradually deteriorated into an architecture that was awkwardly imitating the promotional marketing of other countries.⁴ A crisis of ideology and planning of the territory had reduced Italian architecture to a discipline dominated by the building technology, and programmatic and political demands of the time. As a result, contemporary Italian architecture has been held hostage by its own best intentions: interdisciplinary and avant-gardist approaches, and the necessity to offer realistic and crude solutions to a desolated scenario anticipated by Leonardo Benevolo and Manfredo Tafuri.⁵

On the basis of those observations about the current state of Italian architecture, my research explores the concepts and methodologies of *Tendenza*, a group of architects that was crucial in organizing the International section of the XV Triennale of 1973, which, within my assessment, is understood as a point of arrival as well as a point of departure for architecture culture in Italy and worldwide. This exhibition indeed offered a clear portrait of a new up and coming discourse based on the understanding of the relationships between city and architecture, a tendency that had been emerging both in Italy and worldwide.

³ See Kenneth Frampton, *Modern Architecture: A Critical History*, (London: Thames & Hudson, 2007), 294-295; Alberto Alessi, *Italy Now?*, (Ithaca, NY: Cornell AAP Publications, 2007), 3; Manfredo Tafuri, *History of Italian Architecture 1944-1985*, (Cambridge: The MIT Press, 1990), 135-141.

⁴ Alberto Alessi, *Italy Now?*, (Ithaca, NY: Cornell AAP Publications, 2007), 27.

⁵ Manfredo Tafuri, *History of Italian Architecture 1944-1985*, (Cambridge: The MIT Press, 1990), 199.

Consequently, the final scope of this work is to create a comprehensive system of historical investigation that links theories and design methodologies to the practice of architecture, and that provides suggestions on the direction of changes in Italian architecture culture supporting the importance of a coherent methodological architectural school.

Philosophical and Theoretical Stance

This dissertation's philosophical and theoretical approach is based on a strategy of criticism both theoretical and operative.⁶ This comprehensive methodology was necessary in order to identify those problems relevant to my research topic and to create a framework that seeks drastic changes in terms of design processes. The methodological approach to my dissertation was also envisioned as hermeneutical because I had to rely on the development and study of theories of the interpretation and understanding of texts necessary in framing my design stance.

Within this methodological and philosophical organization, the study of typology as generator of architectural form, very important within the work of *Tendenza*, was addressed by a structuralist approach where the finalization of knowledge is based on the development of series of relevant taxonomies, in which internal principles are isolated and analyzed with respect to the whole.⁷ Essentially, this system of classification allowed for a better understanding of particular typological and morphological patterns that either

⁶ Manfredo Tafuri, *Theories and History of Architecture*, (New York: Harper & Row, 1980), 141.

⁷ Umberto Eco, *La Struttura Assente*, (Milano: Bompiani, 2004), 197.

changed or emerged overtime showing no specific correlation between structures and functions.⁸ In Rossi's definition, "*typology presents itself as the study of types of elements that cannot be further reduced, elements of a city as well as of an architecture...no type can be identified with only one form, even if all architectural forms are reducible to types.*"⁹ The process of reduction is a necessary logical operation (typical of rationalist praxis), and it is impossible to talk about problems of form without this presupposition. Thus, the main consideration of my work is that any process that summarizes or rationalizes complex categories could be reducible to a particular type, and it could be typologically studied. The concept of type is also characterized by a generative idea and a material manifestation of it, which can take on many different forms. Jean-Nicolas Louis Durand believed that new types are the evolution of old types that have undergone mutations to adapt to a changing urban context. In fact, by following this procedure, we can recognize and classify specific architectural

⁸ The concept of emergence is understood as the way complex systems and patterns arise out of a multiplicity of relatively simple interactions. Emergent architectural and urban structures appear at many different levels of organization or as spontaneous order. Emergent self-organization also appears frequently in cities where no planning or zoning entity predetermines the layout of the city. Within this philosophical and architectural framework, the concept of typology could be understood as the taxonomic classification of characteristics common to buildings or urban spaces that are spontaneous and self-organized. If typological thinking provides us another method of classification, then we should also be able to codify emergence both formally and functionally. This approach requires a major understanding of differentiated structures and complex morphogenetic theories as they inform the recognition of variations, yet if we can summarize the results of our codification process, then we should be able to classify those elements of spontaneous order by specific generational types. Although, and philosophically speaking, the concept of emergence is quite dynamic as it involves this immediacy of change and a sum or a difference of the co-operant forces, it becomes very static when we can record and sort out morphogenetic and typological variations.

⁹ Aldo Rossi, *L'Architettura della Città*, (Padova: Marsilio, 1966), 41.

characteristics, for instance a courtyard, and see how its morphology has changed overtime in relation to the city and its urban fabric.

The word type represents not so much the image of a thing to be copied as the idea of an element that must itself serve as a rule for the model.... The model, understood in terms of the practical execution of art, is an object that must be repeated such as it is; type, on the contrary, is an object according to which one can conceive of works that do not resemble one another at all. Everything is precise and given in the model; everything is more or less vague in the type. Thus we see that the imitation of types involves nothing that feelings or spirit cannot recognize.¹⁰

The concept of type, very important for a systematic understanding of the work of *Tendenza*, is not defined as an image or a thing to copy or imitate, but rather as an element, which can conceive of works that don't resemble one another. The primary observation is that the dominant material manifestations of the city are building types, which have been used to shape the city for a long time. Thus, types are not seen as stable elements but rather as renewable and regenerative apparatuses. Types in architecture are generally defined by function or genre. However, types can also be grouped according to other attributes such as structure, organization, and form. Thus, typology is seen as a method for reasoning and experimenting through types.¹¹ It begins with precedents and it proceeds via variations and differentiation in response to specific and demands and pressures. It aims to seek new solutions while keeping shared collective traits that are

¹⁰ Silvia Lavin, *Quatremère de Quincy and the Invention of a Modern Language of Architecture* (Cambridge, MA: MIT Press 1992), p 78. Originally in Antoine-Chrysostome Quatremère de Quincy, "Type," in *Encyclopedie Methodique*, Architecture, vol. 3, pt. II, (Paris, 1825).

¹¹ Aldo Rossi, *L'Architettura della Città*, (Padova: Marsilio, 1966), 41.

In Rossi's definition, "typology presents itself as the study of types of elements that cannot be further reduced, elements of a city as well as of an architecture...no type can be identified with only one form, even if all architectural forms are reducible to types."

repeatable and have same characteristics. Within this framework, precedents, repetition, differentiation, and continuity are all extremely crucial toward an understanding of typological methodologies. Consequently, typology becomes a methodological tool for the reasoning and production the urban plan.

Criticality was expressed in terms of its ultimate philosophical expression: Critical Theory. This term has always had a narrow as well as a broad meaning in philosophy and in the history of the social sciences, a condition consequential to the establishment of the ISR (*Institut für Sozialforschung*).¹² Critical theory relies on a systematic, comprehensive social theory that confronts issues resulted from the advent of modernity. It is symptomatic that, when architecture culture rejects modernism and functionalism as a form of ghettoization of social groups, students and intellectuals return to the writings of Benjamin, Adorno, Marcuse, and Horkheimer. Critical theorists were very interested in areas such as politics and mass culture.¹³

This comprehensive and social approach became very instrumental in reframing architecture based on the critique of modernist approach. Critical Theory particularly designates several generations of German philosophers and social theorists in the Western European Marxist tradition known as the Frankfurt School. According to these theorists, a “critical” theory may be distinguished from a “traditional” theory because it embodies a specific practical purpose: a theory is considered critical as it seeks human

¹² Russell Berman. *Modern Culture and Critical Theory* (Madison, WI: Wisconsin Press. 1989), 12.

¹³ Richard Wolin, *The Frankfurt School Revised* (New York: Rutledge, 2006), 12-15.

emancipation, in order to liberate human beings from the circumstances that enslave them.¹⁴

*It has often been said that because the critical theorists frequently criticized the work of others, it is easier to say what critical theory is not rather than what it is. There is enough truth in this comment to allow us to begin by defining critical theory negatively.*¹⁵

In terms of architectural thinking and methodology, Critical Theory was defined by Kenneth Frampton as a negative critique as exemplified by members of the Frankfurt School, for instance Theodor Adorno and Max Horkheimer who argued, in *Dialectic of Enlightenment*, that the best intentions of culture are hopelessly constrained in capitalist society.¹⁶ A Critical Theory, thus, functions as a reflective theory that triggers a kind of knowledge inherently productive of enlightenment and emancipation. It is also clear that Critical Theories do not intend to prove a hypothesis or test a theory, but like mentioned before, they are rather reflective and established to achieve drastic changes.

*What is normally meant by operative criticism is an analysis of architecture (or of the arts in general) that, instead of an abstract survey, has its objective the planning of a precise poetical tendency, anticipated in its structure and derived from historical analyses programmatically distorted and finalized.*¹⁷

Operative Criticism, which originates from Critical Theory, is defined as the meeting point between history and design. It is a criticism, which comes from the architect or the historian in an attempt to manifest a vision or make a change. Rather

¹⁴ Ibid, 15.

¹⁵ David Held, *Introduction to Critical Theory*, (Berkley, CA: University of California Press, 1980), 24.

¹⁶ Theodore Adorno, and Max Horkheimer, *Dialectic of the Enlightenment*, (Stanford, CA: Stanford University Press, 2007), 3.

¹⁷ Manfredo Tafuri, *Theories and History of Architecture* (New York: Harper & Row, 1980), 141.

than developing a linear historical survey, operative criticism distorts history creating multiple layers of narratives with the intention of projecting tendencies forward out the past. The final result of criticism is the artifact generated out of the study of existing architecture.¹⁸ Therefore, criticism finally moves from the media of description to the medium of architecture itself. Design will indeed be used as a form of criticism. This comprehensive strategy based on a combination of philosophical worldviews will be necessary to frame and identify some of the theories and designs relevant to that discourse developed within the International section of the XV Triennale of Milan in order to reconstruct a clear design methodology.

Significance of Study

Based on the historical analysis of Manfredo Tafuri, and Leonardo Benevolo, Italian architecture culture and the production of Italian design has gradually deteriorated into an architecture that has been awkwardly imitating the promotional marketing of other countries, proposing interdisciplinary solutions to a field already dominated by programmatic and political demands.¹⁹ Nowadays, Italian architecture exists not as a unified school but as solo attempts characterized by an infatuation in current international trends. Within this domain, my doctoral work could be interpreted as a point of departure toward the acknowledgement and development of a rational methodology that could reassess the importance of the analytical and typological

¹⁸ Ibid, 142.

¹⁹ Alberto Alessi, *Italy Now?*, (Ithaca: Cornell AAP Publications, 2007), 11; Manfredo Tafuri, *History of Italian Architecture 1944-1985*, (Cambridge: The MIT Press, 1990), 199; Leonardo Benevolo, *L'Architettura dell'Italia Contemporanea*, (Bari: Laterza, 1998).

explorations of *Tendenza*, a group of Lombard and Venetian architects very active in Italy between the 50s and the 70s.²⁰

Recently, there has also been a renewed interest in Italian Architecture culture, which after the glory-years underlined by the ideas and methods expressed in the XV Triennale of 1973 has not been able to acquire any sort of theoretical approval worldwide.²¹ Major preoccupations about the state of Italian architecture became obvious and distinctive during the 90s shortly after the death of Manfredo Tafuri and Aldo Rossi. In fact, both Marco De Michelis and Pierluigi Nicolini write about the end of a long a productive cycle that had started in the early 50s.²² Italian architecture was going through an obvious crisis characterized by the lack of critical reflections and the profound social and political disruption as a result of the intense *Tangentopoli* years.²³

The exhibition *Contemporary Italian Architecture: Experience and Research of the New Generation*, which opened in the winter of 1993, was organized by Giampiero Bosoni to present the work of several young architects that were under the age of forty. Yet, the exhibition did not have a clear and homogeneous outline, while it ended up showcasing mediocre work characterized by a quite evident pragmatic and technocratic

²⁰ *Tendenza* is usually associated to a Milanese group close to Aldo Rossi and a Venetian group close to Carlo Aymonino. However, other small circles of architects can be associated to this new rational tendency, for instance the Neapolitan group lead by Uberto Siola and Salvatore Bisogni and the Trieste group represented by Luciano Semerari which both participated to the XV Triennale of 1973 under the section “*Progetti su temi diversi elaborati da architetti e gruppi di lavoro.*”

²¹ Alberto Alessi, *Italy Now?*, (Ithaca: Cornell AAP Publications, 2007), 12.

²² The article by Marco De Michelis “*At the End of a Cycle*” was published on *Lotus International* in 1994, vol. 81, 6-17; Pier Luigi Nicolini, *Notizie sullo stato dell’Architettura in Italia*, (Roma: Bollati Boringhieri, 1994).

²³ *Tangentopoli* is a term that was coined to describe pervasive corruption in the Italian political system exposed in the 90s. See Paul Ginsborg, *A History of Contemporary Italy: Society and Politics 1943-1988*, (New York: Palgrave MacMillan, 2003), 424.

agenda²⁴. In 2001, Luca Molinari analyzed the state of Italian architecture by looking at the work of fifty new Italian architects.²⁵ While some of the work of Mirko Zardini, Aldo Aymonino, Cino Zucchi, and Stefano Boeri seemed to show some interesting peculiarities, everything else was poorly organized and without a common methodological logic.²⁶ It was not necessarily a problem of language to consolidate, but it was about defining a common strategy that would trigger a new sense of criticism.

*Tale indagine era finalizzata alla possibilità di individuare nuove strategie in grado di rendere più funzionale e produttivo, ma anche più articolato e significativo, sia l'accordo tra le diverse generazioni sia il loro conflitto. In effetti, tra i tanti problemi che l'architettura italiana deve fronteggiare oggi all'interno di una competizione nazionale e internazionale sempre più estesa e serrata, emerge quello di un confronto più maturo e avanzato tra le varie posizioni espresse dalle generazioni attualmente attive, i cui rispettivi orientamenti teorici e operativi sono spesso poco conosciuti, fraintesi o polemicamente distorti.*²⁷

In 2005, Franco Purini analyzed the same processual condition in a series of lectures held at the *La Sapienza* University in Rome. This significant episode tried to recognize those cultural generations that had been significant within the Italian architectural debate. Interestingly enough, Purini located five generations, all of which

²⁴ See Marco De Michelis "At the End of a Cycle," *Lotus International*, vol. 81 (1994), 6-17.

²⁵ See Luca Molinari, *50. Nuova Architettura Italiana due Generazioni a Confronto*, (Milano: Motta, 2002).

²⁶ Particularly, some of the work of Cino Zucchi was published on "Rationalist Traces," *Architectural Design*, vol. 77, No. 5 (2007), 16-19.

²⁷ Such inquiry was finalized to locate new strategies in order to make the agreement and the conflict between generations more functional and productive, but also more articulated and significant. Effectively, among all the problems that Italian architecture has to face nowadays within a national and an international competition more and more extensive and close, a more mature and advanced dialogue emerges among the positions expressed by those generations currently active, whose theoretical and operative orientations have been often unknown, misunderstood or just polemically distorted; (my translation), see Franco Purini, *Generazioni e Progetti Culturali* (Roma: Gangemi Editore, 2005), 7.

shared common disciplinary features with the methodological discourse produced by *Tendenza*. The exhibition “*Italy Now?*” opened at Cornell University College of Architecture, Art, and Planning in 2007. The investigation was mainly generated by an alarming question asked by Mohsen Mostafavi during a meeting in Zurich in 2004: Why should we be interested in Italian architecture nowadays? And what happened to that cultural matrix produced during the 50s and the 70s by Rossi, Grassi, Gregotti and Tafuri, which defined the work of several architectural generations?²⁸ On the base of those relevant questions, my doctoral work tries to shed light on those years of incredible architectural production by recognizing a matrix of associations and demonstrations that validate and legitimize that discourse based on an understanding of the city and its architecture through a close examination of the work and key concepts of a group of architects known as *Tendenza*.

Interesting developments with regards to the typological studies of the 50s and 70s have also arisen from the Architectural Association in London in what is known as the Diploma 6 component or the Typological Formations studio.²⁹ Christopher Lee and Sam Jacoby have based this didactic model on an analysis of the early typomorphological investigations by Muratori, Rossi and Grassi, in order to define an inclusive urban approach to parametric design. Their main idea considers building

²⁸ Alberto Alessi, *Italy Now?*, (Ithaca: Cornell AAP Publications, 2007), 15.

²⁹ AA’s Diploma Unit 6 is a design studio, which demarcates a return to the study of the city through an understanding of its relevant and dominant types. *Typological Formations* is a publication that contains work developed over three years of design investigations that focused on the importance of typological thinking as a tool for reasoning and producing the urban plan. See Christopher Lee and Sam Jacoby, *Typological Formations: Renewable Building Types and the City*, (London: AA Publication, 2007).

typology as the provider of dominant models, but, rather than looking at typologies based on specific conventional functions, they have expressed more interest in typological classification of architectural forms. On the contrary, the postmodern adoption of typology entirely missed the relationship between building types and urban morphology that emerged in Italy during the late 50s and early 60s.³⁰

Yet, this relationship was also limiting the idea of building types to a fixed and static historical configuration rather than a generative apparatus or a diagram. Types, as intended by Argan and Quatremère de Quincy, need to be understood as a container of infinite formal variations. Rapidly changing conditions of the contemporary city have forced a different understanding or use of building types. This represents a clear shift from the mechanically determined concept of type to that of the diagram, which represents an abstraction of a condition that is yet to form.³¹

*We define the abstract machine as the aspect or moment at which nothing but functions and matters remain. A diagram has neither substance nor form, neither content nor expression. Substance is a formed matter, and matter is a substance that is unformed either physically or semiotically. Whereas expression and content have distinct forms, are really distinct from each other, function has only 'traits' of content and expression between which it establishes a connection: it is no longer even possible to tell whether it is a particle or a sign.*³²

³⁰ Christopher Lee and Sam Jacoby, *Typological Formations*, (London: AA Publications, 2007), 4-5.

³¹ Gilles Deleuze, Félix Guattari, Brian Massumi, *A Thousand Plateau: Capitalism and Schizophrenia*, (New York: Continuum, 2004), 156.

³² *Ibid.*, 156-157.

In this context, dynamic and non-linear parameters inherent to the diagram don't create fixed situations (types) that can be predicted or characterized, but instead they create alterable building solutions.³³

Although Dutch architects Ben van Berkel and Caroline Bos have underlined possible problems related to a return to typological thinking, for instance the idea of classifications, their diagrammatic abstract machine has remained equally ineffective since it did not completely avoid classification but it just delayed the production of taxonomies.³⁴ Indeed, architecture is understood as a material practice in which any new solution can eventually become typified. Similarly, my work is trying to acknowledge the relevance of those processes developed during the 50s and 70s, which were already looking into typological formations, yet without the use of information and digital technology.

In the United States, the work of *Tendenza* has found some interesting applications especially within the work of historians and theorists such as Stanford Anderson, Diane Ghirardo, Anthony Vidler, and Michael Hays who have shown interest in the architecture of the 50s and the 70s and, in particular, in the work of Aldo Rossi and Manfredo Tafuri. The premises of this interest is found in this recognized opinion that the advanced architecture of the 1970s has left a legacy of experimentations and

³³ See Christopher Lee and Sam Jacoby, *Typological Formations*, (London: AA Publications, 2007), 7.

³⁴ See Ben van Berkel and Caroline Bos, "Diagrams: Interactive Instruments in Operation." *Any* 23, no.23 (1998).

theoretical speculations that have not been matched by any of the late avant-gardes.³⁵ Most of the studies based on the interpretation of the writings of both Aldo Rossi and Manfredo Tafuri focused on the definition of autonomous approaches to an architecture that had been contaminated by utopian and technocratic solutions.³⁶ During 1965 and after the early studies on the work of Emil Kaufmann and the claim of Kantian autonomy, the concept of internal investigations had regained a new resonance while architecture was trying to re-establish its basis defending itself from the technological optimization and utilitarianism.

The Italian group of *Tendenza* developed a way to use typological studies as mean of autonomous representation of the city. Within this context, the theoretical and methodological work of Massimo Scolari, which was expressed in his essay *The New Architecture and The Avant-Garde* becomes very important as it represented a true manifesto of autonomous architecture.³⁷ In his introduction published for the International section of the XV Triennale of 1973, Scolari withdraws from the theories of Gyorgy Lukacs, a Marxist philosopher, who particularly believed that architecture's success is based on the repetition of a genetic autonomous code (type).³⁸

³⁵ K. Michael Hays, *Architecture's Desire: Reading the Late Avant-Garde*, (Cambridge, MA: The MIT Press, 2009).

³⁶ See K. Michael Hays, *Opposition Reader: Selected Essays 1973-1984* (Princeton: Princeton Press, 1997).

³⁷ This essay was published in the original catalog of the XV Triennale di Milano Sezione Internazionale di Architettura with the title *Architettura Razionale*, which was edited by Aldo Rossi and Ezio Bonfanti and published by Franco Angeli Editore in 1973. The English version was published in K. Michael Hays's *Architecture Theory since 1968*, edited by The MIT Press in 2000.

³⁸ K. Michael Hays, *Architecture Theory since 1968*, (Cambridge, MA: The MIT Press, 2000), 102.

Yet, *Tendenza's* model of autonomy (or Rossi's), although powerful, lacked applicability in what is now the new image of the city. In fact, the city and the models used by Aldo Rossi in *L'Architettura della Città* had already disappeared, and it had been replaced by other concepts such as edge condition, exurbia, suburbia, etc. However, the model of European city used by Rossi seemed to be confirming the existence of a mnemonic and analytical process based on regenerative dominant types.

In 1971, Denise Scott Brown and Robert Venturi had proposed a new autonomous dogma based on a visual and formalist perception of architecture surfaces and pop images that overtook the experience of the city through typological formations.³⁹ Image consumption replaced object production where media became the solution to the representation of this new perceptive architecture based on formal types. The apparent split between Neo-Rationalists and Neo-Realists was seemingly reconnected by Peter Eisenman in his essay entitled *Post-Functionalism* which appeared to be nothing more than a mediation and an absorption of Rossi's and Venturi's views.⁴⁰ Eisenman asked for an extension of these positions in order to actualize the issue of autonomy, and he accomplished that by producing displaced objects/architectures that speak into what he called the void of history.⁴¹ Specific contemporary design methodologies can also be linked to the autonomous explorations of Aldo Rossi, Massimo Scolari, and Giorgio Grassi. In fact, the production of architects such as Frank

³⁹ This view was elucidated in Venturi's book *Learning from Las Vegas and Complexity and Contradictions in Architecture*.

⁴⁰ This essay was published in Peter Eisenman, *Eisenman Inside Out Selected Writings 1963-1988* (New Haven: Yale Press, 2004), 83-87.

⁴¹ *Ibid.*, 85.

Gehry, Greg Lynn and Coop Himmelblau has refused any type of professionalism or disciplinary partitioning, while it has been focusing on form making processes that isolate the architect from any external contamination. Yet, this methodology has created anti-contextual buildings that can be inserted anywhere with little to no regard for the existing urban fabric.⁴²

Again, within this framework, I believe that my doctoral work represents another point of view of this process of internalization of autonomous architectural language, which, according to my investigation, is based on a clear and rational model characterized by the recognition of relevant and repeatable urban taxonomies.⁴³

Research Method

This dissertation was essentially planned out in a non-linear way that emphasized the importance of cyclical constituents such as ideas and methods over a strictly chronological account of those historical events pertaining to the work of *Tendenza* and the XV Triennale of 1973. In fact, rather than proposing a linear and chronologic narrative, I decided to operate by critically exposing concepts and events that emphasized the proposition of a certain architectural discourse, without chronological meaning and with different levels of analysis so that there would be many beginnings

⁴² Another interesting investigation that links the work of Rossi, Eisenman, and Venturi to that of Greg Lynn, Frank Gehry, and Coop Himmelblau was published in K. Michael Hays' article "*Prolegomenon for a Study Linking the Advanced Architecture of the Present to That of the 1970s through Ideologies of Media, the Experience of Cities in Transition, and the Ongoing Effects of Reification*" (pp. 101-107, *Prespecta* vol. 32, 2001).

⁴³ Taxonomy is here defined as a strategic classification, arranged in a hierarchical structure, which is typically organized by supertype-subtype relationships.

and many histories. This fragmented process helped uncovering the theoretical domain of those discursive formations related to the idea of rationality in architecture by underlining the presence of norms and rules that enable the creation of a specific architectural method, that of *Tendenza*. Architecture and its production of theories and buildings will present history by uncovering its intricate structure of relationships existing between ideas, people, and buildings.⁴⁴

The understanding of those relevant structures of knowledge and relations was addressed by a structuralist system of inquiry. The basic premises of a structuralist research are that human activity and its products, even perception and thought, are constructed and not natural.⁴⁵ In order to effectively identify, communicate, and integrate distinctive design methodologies, my system of inquiry utilized a combined research strategy based on the use of Interpretive-Historical research tactics as well as the use of particular case studies analyzed in individual chapters. This arrangement provided a significant way to complement research strategies in order to obtain more credible and reliable results. The goal of this structuralist activity is to construct a simulacrum of the object, for this makes something appear which remained invisible, or if one prefers, unintelligible.⁴⁶ Essentially, a structuralist research-based approach operates through a two-phase activity. First, it submits the work to a "dissection"

⁴⁴ Chapters have been assembled independently. Topics and ideas relevant to the work of *La Tendenza* have been presented in a sort of autonomous way in order to emphasize the importance of them in relation to my thesis. The main idea is to offer a precise account of those heterogeneous and complex tangibles that characterized a very prolific architectural discourse in Italy.

⁴⁵ Michel Foucault, *The Order of Things*, (New York: Vintage Books, 1999), 125.

⁴⁶ See Neil Leach, *Rethink Architecture: a Reader in Cultural Theory*, (New York: Routledge, 1997), 167.

whereby the "fragments" (equivalent to what have been termed "elements" above) are revealed. And then, through a process of "articulation," the "rules of association" of these "units" are established.⁴⁷ This description of structuralism in terms of dissection and articulation is helpfully suggestive. To dissect a work of art in order to determine its structures is to look "below the surface" of the work. In other words, in order to isolate structuring principles and the individual elements that form those structures, we have to look beyond that which is immediately manifested. Yet again, one of the strongest beliefs behind this doctoral work is that structures, in the form of typological formations, are universally embodied into the urban fabric of a city.⁴⁸

A New Kind of History

...to seek in this great accumulation of the already-said the text that resembles "in advance" a later text, to ransack history in order to rediscover the play of anticipations or echoes, to go right back to the first seeds or to go forward to the last traces, to reveal in a work its fidelity to tradition or its irreducible uniqueness, to raise or lower its stock of originality, to say that the Port Royal grammarians invented nothing, or to discover that Cuvier had more predecessor than one thought, these are harmless enough amusements for the historians who refuse to grow up.⁴⁹

The main body of my data, facts or information comes from the study of specific manuscripts that frame the work and methodologies of the so-called *Tendenza*.⁵⁰ Since

⁴⁷ Ibid., 165.

⁴⁸ Neil Ellin, *Postmodern Urbanism*, (Princeton, NJ: Princeton Architectural Press, 1999), 24-27.

⁴⁹ Michel Foucault, *The Archeology of knowledge* (New York: Pantheon, 1982), 144.

⁵⁰ In order to organize the hypothesis of the XV Triennale and to provide a better understanding of the ideas of *La Tendenza*, I have chosen to read primary texts as they represent the best opportunity to dissect crucial theoretical orientations that might not be directly evident in secondary texts. I have also used original catalogs, articles, and books that were written by those who organized the event in Milan.

my research deals with approximately twenty-five years of Italian architectural history, I implemented an Interpretive-Historical research strategy, which helped me define the historical domain as well as the narrative style adopted.

Within this methodological framework, I looked at the contextual work of several historians who adopted a wide variety of approaches and strategies. In fact, history can be narrated in several different manners, from a formalist approach (Colin Rowe) to a more politicized one (Manfredo Tafuri). In order to avoid any bias or subjective interpretation, I analyzed the content and narrative of reputable historians such as Cesare de Seta, Manfredo Tafuri, Bruno Zevi, and Leonardo Benevolo who clearly framed Italian architectural historiography.⁵¹ Their comprehensive work and historical analysis has allowed me to establish my research on wide-ranging historical and interpretive models.⁵² This tactic also consented for multiple levels of data collection since I have taken into consideration a given number of historical texts in order to

Again, while the interpretive-historical research strategy based on the work of Tafuri, Benevolo, de Seta, and Zevi has defined the historical background, a series of case studies based on the theoretical production of the rational tendency produced by Aldo Rossi, Giorgio Grassi, Carlo Aymonino, and Ezio Bonfanti has located a precise methodological agenda based on developments within the field of urban architectural studies. In the specifics, Aldo Rossi organized the XV Triennale in collaboration with Franco Raggi, Rosaldo Bonincai, Ezio Bonfanti, Massimo Scolari, Daniele Vitale, and Gianni Braghieri. The exhibition was also anticipated by major publication such as *The Architecture of the City By Aldo Rossi, Origini e Sviluppo della città' Moderna* by Carlo Aymonino, *La Costruzione Logica dell'Architettura* by Giorgio Grassi, and *Scritti Scelti again by Aldo Rossi*. I believe that in order to understand the premises of the XV Triennale of 1973, which represents the focal point of my research, it is mandatory for me to present and analyze the theoretical foundations of this renewed rational tendency, which was to be found in the writings I listed above.

⁵¹ See Manfredo Tafuri, *History of Italian Architecture 1944-1985*, (Cambridge MA: MIT Press, 1990); Cesare de Seta, *L'Architettura del Novecento*, (Torino: UTET, 1981); Leonardo Benevolo, *L'Architettura dell'Italia Contemporanea*, (Bari: Laterza, 1998); Bruno Zevi, *Storia dell'Architettura Moderna*, (Torino: Einaudi, 1950).

⁵² Linda Groat and David Wang, *Architectural Research Methods*, (New York: John Wiley & Sons, 2002), 10.

understand the recurrence of particular events in Italian architectural culture. The resulting evaluation of the information collected was also organized and assessed by testing its authenticity, social trend, and self-criticality. Multiple levels of triangulation were necessary in order to avoid any sort of oversimplification of the data obtained.

Continuous history is the indispensable correlative of the founding function of the subject: the guarantee that everything that has eluded him might be restored to him; the certainty that time will disperse nothing without restoring it in a reconstituted unity; the promise that one day the subject – in the form of historical consciousness – will once again be able to appropriate, to bring back under his sway, all those things that are kept at a distance by difference, and find in them what might be called his abode.⁵³

Interestingly, this method did not produce a type of narrative that tended to emphasize the evolution of the past in a sort of nostalgic way; on the contrary, it allowed for a style more open and attentive to those overlapping idiosyncrasies that resulted into interesting methodological developments. I believe that recognizing differences while analyzing a particular methodological school is extremely vital because those elements of discontinuity contain important information about the generative characteristics of a given model. Furthermore, I was able to frame and identify my historical domain, research question and the philosophical worldview of my argument.

Ultimately, to demonstrate my original thesis, I have analyzed the International section of the XV Triennale Architectural Exhibition of 1973, which represented a point of arrival as well as a point of departure for architecture culture in Italy and worldwide. Within this framework, my dissertation exposed matrix of associations and

⁵³ Michel Foucault, *The Archeology of Knowledge* (New York: Pantheon, 1982), 12.

demonstrations that validated and legitimized the rational discourse based on an understanding of the city and its architecture through a close examination of the work and key concepts of a group of architects in the Italy of the 1960s known as *Tendenza*. This dissertation, fundamentally, is not meant to be a purely historical account of some relevant architectural discourse, but it proposes to unfold those critical, ideological, and methodological reflections that locate those fundamental characters and epistemological principles supporting a rational architectural practice freed of preconceived forms.

Chapters Outline

*Having in mind that the general idea of what is to be done, if it precedes the attempt to carry it out, facilitates the comprehension of this process, it is worth while to indicate here some rough idea of it, with the intention of eliminating at the same time certain forms whose habitual presence is hindrance to philosophical knowledge.*⁵⁴

In the absence of a preface, Chapter I should be read and understood as an expository exercise, which introduces the reader to the premises of my dissertation, unfolding my research question, the methods used, the relevance of it, and its internal articulations. As in most doctoral works, my introduction proposes an explanation of my individual philosophical framework in order to clarify the narrative style adopted as well as the sequence of events analyzed.

Chapter II introduces the reader to the XV Triennale and its two major ideological components: Rationalism and Autonomy. Consequently, the rest of the chapter offers a chronological and explanatory account of rationalistic and autonomous developments within the field of architecture by analyzing the importance of the

⁵⁴ Friedrich Hegel, *The Phenomenology of the Mind* (New York: Harper, 1967), 22.

theoretical work of Vitruvius, Leon Battista Alberti, Abbè Laugier, Boullée, Ledoux, Jean Nicolas Durand, and the so called Proto-Rationalists⁵⁵.

Chapter III explains the origins of *Tendenza* by looking at the schools of Rome, Venice, and Milan and the respective work of Ludovico Quaroni, Giuseppe Samoná, and Ernesto Nathan Rogers. Chapter IV analyzes the importance of the city as background of a new methodology. Particular consideration will be given to the didactic of the course *Caratteri Distributivi degli Edifici*, the methodological research of Saverio Muratori and Gianfranco Caniggia, and the production of specific typological and morphological readers that introduced the importance of urban approaches based on the relationship between analytical research and design processes.

While Chapter V focuses on the theoretical production of the main members of *Tendenza* such as Aldo Rossi, Giorgio Grassi, Carlo Aymonino, Vittorio Gregotti, Nino Dardi, and Ezio Bonfanti, Chapter VI presents a clear break down of the International section of the XV Triennale Exhibition of 1973 by offering a comprehensive analysis of the work exhibited.

Chapter VII will conclude this doctoral work by outlining and acknowledging the importance of a rational methodology, if that is possible at all nowadays, as an alternative discourse when the overly rhetorical production of the so called avant-gardes has finally extinguished.

⁵⁵ Ludwig Hilberseimer, Heinrich Tessenow, J.J.P. Oud, Adolf Loos, and Peter Behrens are usually the principal architects labeled as Proto-Rationalists or Pre-Rationalists, a group that anticipated the instances of early modernism and of Rationalism. See Gabriella D'Amato, *L'Architettura del Proto-Razionalismo*, (Bari: Laterza, 1987).

CHAPTER II

POINT OF DEPARTURE: RATIONALISM AND AUTONOMY

“L’architettura Razionale non è una visione estetica o morale, un modo di viver, ma l’unica risposta sistematica ai problemi posti dalla realtà.”⁵⁶

Aldo Rossi

“For Tendenza, Architecture is a cognitive process that in and of itself, in the acknowledgement of its own autonomy, is today necessitating a refunding of the discipline; that refuses interdisciplinary solutions to its own crisis; that does not pursue and immerse itself in political, economic, social, and technological events only to mask its own creative and formal sterility, but rather desires to understand them so as to be able to intervene in them with lucidity – not to determine them, but not to be subordinate to them either.”⁵⁷

Massimo Scolari

Preamble: Rational Architecture and the XV Triennale of Milan

The International Architecture Section of the XV Milan Triennale, organized and directed by Aldo Rossi, in collaboration with Gianni Braghieri, Daniele Vitale, Franco Raggi, Rosaldo Bonicalzi, and Massimo Scolari opened on September 20, 1973 at the *Palazzo dell’Arte* in Milan (see Appendix D). The architecture exhibition was titled *Architettura-Città* (literally Architecture-City), and it was presented and organized under the premises of Rational Architecture (Figure 1) in order to offer viable alternatives to a

⁵⁶ Rational architecture is not an aesthetic vision nor a moral or a way of living, but it is the only systemic answer to real problems; (my translation), in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 13; also cited in Federica Visconti, Renato Capozzi, *Architettura Razionale*, (Napoli: CLEAN, 2008), 1.

⁵⁷ See K. Michael Hays, *Architecture Theory Since 1968*, (Cambridge, MA: MIT Press, 2000), 124. This excerpt was also published in Ezio Bonfanti, *Architettura Razionale*, (Milano: Franco Angeli, 1973), 153-188.



Figure 1. Front cover of *Architettura Razionale*. This is one of the official publications prepared for the XV Milan Triennale, and it includes essays by Ezio Bonfanti, Aldo Rossi, Rosaldo Bonicalzi, Massimo Scolari and Daniele Vitale. This book, published by Franco Angeli Editore in 1973, contained the historical and methodological precedents that underlined the rational discourse of the Italian *Tendenza*.

confused profession characterized by exuberance, interdisciplinary approaches, and what Ernesto Rogers had called the dangers of extreme professionalism.⁵⁸

At the end of the 60s, Italian economy had boosted exponentially, especially in cities such as Milan, Turin, and Rome. However, this increasing process of industrialization had also created several urban problems; in fact, social and architectural uneven developments had created a profound disjunction between the city centers and the peripheries. New developments, mostly residential, had been built with total disregard to the idea of a homogeneous urbanism capable of providing infrastructure and services for those far from the central administrative districts. Politically speaking, the years preceding the XV Triennale are the years of leftist protest against the inequitable conditions of the working operaist class. Unions such as CISL and CIGL,⁵⁹ and the PCI and PSI, the communist and socialist parties, had proposed a vantageous political coalition with the Democratic Christian party (DC) to elaborate an extensive program of social reform, which was supposed to trigger a new economical boom.

Therefore, the International Architecture Exhibition, planned after Italy had finally overcome a tough financial crisis, consisted in a simple showcase of projects that underlined the relationship between architecture, the city, residential typology and urban morphology. Although most of the work was far from being considered architecturally and formally homogeneous, the ideological matrix was essentially very consistent to a

⁵⁸ See Ernesto Rogers, “*I Soliti Farisei*,” in *Casabella-Continuità* n. 292, (October, 1964), 1.

⁵⁹ Paul Ginsborg, *A History of Contemporary Italy: Society and Politics 1943-1988*, (New York: Palgrave MacMillan, 2003), 192.

rational design methodology that had been developing worldwide, and which was strongly influenced by the reading of early Swiss and German rationalists.

*We have here incorporated some texts by and references to Ludwig Hilberseimer, Adolf Behne, and Hans Schmidt because they have a particular meaning within the legacy of modern Movement. Those texts are valid because they have confronted the contradictions of bourgeois architecture from a socialist perspective.*⁶⁰

This new tendency⁶¹ was mostly characterized by a return to a traditional rationality expressed by the early work of Ludwig Hilberseimer, Adolf Behne, Hans Schmidt, and Adolf Loos, which basically followed the principles of a logical architectural composition based on the recognition of pragmatic issues related to the nature of the city. Furthermore, some of the major ideological and methodological components of this new tendency had to be identified in a clear programmatic agenda defined by: the recognition of those rational rules of architectural design that consider architecture as the product of a fabrication process that involves a historical and material awareness, the freedom of formal ambiguity, the importance of the city as a collective artifact where memory overlaps with architecture, creating significant monuments that manipulate morphological aspects of the plan, architectural and typological formalization as a way to keep the buildings timeless and authentic,⁶² categorization of tectonic necessities that influence form, description of those typological variations that are informed by technological and tectonic characters, and the representation of those

⁶⁰ Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 16. Also in Pier Vittorio Aureli, *The Project of Autonomy* (New York: The Temple Hoyne Buell Center, 2007), 58.

⁶¹ The Italian word *tendenza* literally means tendency or trend.

⁶² *Ibid.*, 11.

changes through matrixes of typological and morphological classification intended as the expression of an architectural reality governed by specific urban conditions.

According to those proponents, architecture was finally understood as a clearly-defined discipline with a specific domain, a rational one, in which every operation or method was traceable back to a particular theoretical discourse that perceived architecture as a material practice informed by an unmistakable building logic. Yet, this idea of a newfound rationality was not the result of a rhetorical or melancholic investigation, or even about developing a new aesthetic or a formalist practice; instead, it addressed the necessity for a clear and appropriate design methodology that would establish a new direction in architectural culture in Italy and worldwide.⁶³

Continuity of Rationalist Methodology in Architecture

Generally speaking, the term Rationalism is often associated to a specific philosophical attitude identifiable in the work of Spinoza, Descartes, and Leibniz, that prioritizes the importance of reason and human mind, which also considered unchanging principles as a way to explain non-empirical truths.⁶⁴ Fundamentally, a rationalist epistemology supports the belief that there are inherent ideas, which are embodied from the very beginning of our lives and that unfold as we progress our existence. Thus, rationalist knowledge is what can be absolutely deduced from unquestionable principles.

⁶³ Basically, this is the main reason why I won't associate the Italian discourse of *Tendenza* with the premises of Neo-Rationalism, which seemed to merge with a more formalistic practice identifiable in the work of Rob and Leon Krier, O.M. Ungers, and Mario Botta.

⁶⁴ Robert Solomon, *From Rationalism to Existentialism*, (New York: Rowman & Littlefield Publishers, 2001), 10.

*Of all the arts, architecture is the one in which it is least possible to exclude the idea of rationality. A building has to satisfy pragmatic and constructional criteria, which circumscribe, even if they do not determine, the field within which the imagination of the architect works. Therefore the degree to which architecture can be said to be rational depend less on the presence or absence of rational criteria than on the importance attributed to those criteria within the total process of architectural design and within particular ideologies.*⁶⁵

Yet, the idea of rationalism in architecture is very elaborate because it embeds a number of meanings, applications, and formal outcomes. Its intellectual principles had been originally recognized and explained in a very lucid manner by Vitruvius in his treatise *De Architectura*, where the discipline of architecture is broken down and categorized as a scientific practice that could be rationally analyzed. Vitruvius particularly implies that architectural form is the direct result of its structural framework and the materials used rather than a pre-conceived abstraction generated by the designer.⁶⁶ Thus, the entire design process is understood as a sequential process based on a *raison d'être* in which precise typological and tectonic qualities originate the final architectural form. Accordingly, rational processes do not necessarily generate a given form, or for that matter a given style; instead, they construct a logical and an analytical architectural tendency that is strictly contextual and practical.⁶⁷ Therefore, a rational approach to architecture would provide the identification of those compositional elements, which can also be formally manipulated. This language should include technical laws of construction, natural and historical form, and ideological identity, so

⁶⁵ Alan Colquhoun, *Modernity and the Classical Tradition: Architectural Essays 1980-1987*, (Cambridge, MA: MIT Press, 1989), 57.

⁶⁶ Marcus Vitruvius Pollio, *The Ten Books on Architecture*, Translated by Morris Morgan, (New York: Dover Publications, 1960), 5.

⁶⁷ This is the same tendency or operative attitude that characterize the work of *Tendenza*.

that its consequent architectural product does not mimic some preconceived formal expression, but instead it understands precise design logic based on formal and tectonic qualities.⁶⁸

*Architetto chiamero colui che con metodo sicuro e perfetto sappia progettare razionalmente e realizzare praticamente, attraverso lo spostamento dei pesi e mediante la riunione e la congiunzione dei corpi, opere che nel modo migliore si adattino ai piu importanti bisogni dell'uomo.*⁶⁹

Leon Battista Alberti continued the exploration for a rational methodology in his treatise *De Re Aedificatoria* (published in English with the title *On The Art of Building in Ten Books*), which was partially structured after Vitruvius' *De Architectura*. Alberti explains the role of the architects and the meaning of his architecture; additionally, he points out architecture's genuine objectives as well as the means necessary to accomplish its practical scope.⁷⁰ This explication is based on a scientific attitude, which takes into consideration modes and methods based on unmistakable cultural and technological knowledge. Basically, Alberti's vision not only recognizes architecture's practical purposes, but it also distinguishes its collective and comprehensive qualities, which make the architect the principal negotiator of such a complex scientific process.

⁶⁸ The work of Giorgio Grassi, one of the most prominent members of the Milanese group, deals mostly with issues of rational building logic and process. See Giorgio Grassi, *La Costruzione Logica Dell'Architettura*, (Venice: Marsilio, 1966), or Chapter V of this work.

⁶⁹ I will call architect those who with a safe and perfect method know how to design rationally and how to realize practically, through the moving of loads and the conjunction of bodies, buildings that in the best way adapt to men's most important needs; (my translation), excerpt from Giorgio Grassi, *Leon Battista Alberti e L'Architettura Romana*, (Milano: Franco Angeli, 2007), 49.

⁷⁰ Leon Battista Alberti, *On the Art of Building in Ten Books*, Translated by Joseph Rykwert, Neil Leach, and Robert Tavernor, (Cambridge, MA: The MIT Press, 1991).

This puts a lot of emphasis on moral and ethical issues as architecture should function rather than appear, and it should also comply with a formal research, or what Alberti calls scientific inquiry, which is based on the relationship between buildings and the everyday life. However, this process of rationalization seems to exclude any form of subjective creativity, but, again, the premises of rational architecture, as explained by Leon Battista Alberti, tend to stress more on logical and tectonic processes rather than formal explorations; ideas matter more than form⁷¹

Interestingly, when Alberti introduces the notion architectural form, he does that by simplifying eclectic schemes in order to control the production of those formal norms whose ultimate warrant is just to pleasure the viewer. Alberti also identifies sets of attributes that are supposed to expose the building as a purely formal structure; those elements are order, size, number, color, and form. Sebastiano Serlio uses a similar strategy in his *Seven Books on Architecture* in which he uses illustrations to categorize buildings according to shapes and forms constructing a catalog that facilitate the form making process by offering prototypical schemes that respond to specific urban conditions.⁷² Classification, thus, truly becomes a rational practice that allows the architect to categorize specific problems and propose a set of viable formal and structural solutions; this process, then, unfolds by identifying dominant urban types. Thus, a form of controlled intelligentsia, recognizable in this practice of codification or

⁷¹ Ibid.

⁷² Serlio uses specific examples of specific building types which emerge out of unusual site conditions such as an irregular lot while keeping the internal compositional logic, for instance a courtyard building which has adapted to fit its site constraints. See Andrew Anker et. al., *Autonomous Architecture*, in *Harvard Architecture Review*, vol. 3, (Cambridge, MA: The MIT Press, 1984).

classification, denies any form of abstraction while simply determining the appropriate archetypal framework necessary to solve practical issues. Basically, this practice produces coherent buildings that respond to relatively ordinary concerns, emphasizing ideas and processes rather than form. In fact, rationalist buildings don't seem to show major formal articulation while their tectonic and design logic is always reasoned and responsive to contextual issues.⁷³

The Architecture of the Enlightenment

*The Enlightenment may have wanted to replace l'esprit du système by l'esprit systématique, in order to free practice from the domination of authority and received ideas, but its aims was still to discover universal and unchanging laws underlying empirical evidence.*⁷⁴

Important events relative to the evolution of a rational architectural practice unfolds around the beginning of the eighteenth century, particularly when the process of intellectual liberation, in which reason is considered the primary source for authority and truth, opens up new questions related to the discipline of architecture. The architecture of an historical age known as the Enlightenment was mostly characterized by eclectic inclinations, which brought up a renewed interest in a classical and gothic revivalism. However, other interesting ramifications developed particularly in France, where a group of architects, which included Boullée, Ledoux and Durand, tried to bring architecture

⁷³ Enlightenment Rationalism is usually associated to the work of Durand, Boullée, and Ledoux; early 20th century Rationalism is associated to the work of Loos, Tessenow, and J.J.P. Oud.

⁷⁴ Alan Colquhoun, *Modernity and the Classical Tradition: Architectural Essays 1980-1987* (Cambridge, MA: MIT Press, 1989), 61.

back to the basics, leaving unnecessary ornamental explorations behind. Those years were particularly characterized by increasing cultural, territorial, and technological transformations, and while territorial and technological changes were the logical result of industrial transformations and man's increasing capacity to control nature, cultural developments imposed changes in human epistemology and consciousness.⁷⁵

After the over-elaboration of Rococo architectural language, most academies were trying to develop a new style that would overcome those eclectic experimentations, which, in effect, represented only the ambitions of the local *bourgeoisie*. In 1661, Jean-Baptiste Colbert established the Royal Academy of Architecture with the precise intent to analyze architectural issues by identifying problems and viable solutions. One of the most important concepts that Colbert's Academy tried to accomplish was the establishment of a general theory that would address aesthetical issues by looking at scientific disciplines such as mathematic and geometry as source of possible interdisciplinary solutions. Francois Blondel, a product of Colbert's Academy, also proposed a new simplified attitude based on a rational process; essentially, architecture was understood as a discipline inseparable from reason, which aimed to consolidate French classical tradition by proposing a return to classical constructive order and formal purity. This process also redefined architecture as in terms of its understanding and construction logic, which was clearly exposed in this passage by W. Knight Sturges:

⁷⁵ Kenneth Frampton, *Modern Architecture: A Critical History*, (London: Thames & Hudson, 2007), 28.

*I have used simple terms and a popular style with the intention of being understood by layman and artist alike; having noticed that recent books about architecture are either badly organized or over long.*⁷⁶

While Claude Perrault explored this rational approach by challenging Vitruvius and his compositional system based on human proportions,⁷⁷ the Abbè Jean Louis Cordemoy replaced Vitruvius' utility-solidity-beauty with order-distribution-décor, exploring the relationship between form and structure, and eventually proposing that many building required no ornament at all.⁷⁸ It is also important to keep in mind that those are the years when the split between architecture and engineering materializes in the foundation of the *Ecole des Pont et Chaussées* (the school of bridges and roads) later in 1747.

The Abbè Marc Antoine Laugier in his *Essai sur l'architecture*, published in 1753, further explored the link between the practical and the theoretical by presenting the rules for good architecture. Most importantly, he stated that architectural composition is highly subordinate to all of the operations of the mind that are capable of disorder, and that subjective qualities such as genius or personal talent are "subjected and confined by strict laws."⁷⁹ Laugier was visibly advocating a return to a simpler and less complicated architecture, and that buildings should be conceived first and foremost

⁷⁶ W. Knight Sturges, "Jacques-François Blondel" *The Journal of the Society of Architectural Historians* 11.1 (March 1952:16-19) p. 16.

⁷⁷ Kenneth Frampton, *Modern Architecture: A Critical History*, (London: Thames and Hudson, 2007), 13.

⁷⁸ *Ibid.*, 14,

⁷⁹ See James Steele, "The Epistemology of Reason," *20th Century European Rationalism*, (London: Academy editions, 1995), 9.

as a shelter (the primitive hut) in which each architectural element is dictated by its building logic (Figure 2).

*The little hut that I have just described is the model from which architecture in all its magnificence has been derived; it is by approximating to the simplicity of the first model that the elementary faults of execution are avoided the true perfections captured. The upright pieces of wood gave us the idea of columns. And, finally, the inclined pieces that for the roof gave us the idea of pediments. All the masters of the arts have acknowledged this.*⁸⁰

Within this rational framework, it is also opportune to look at the work of Etienne Luis Boullée and Claude Nicolas Ledoux, who developed a compositional language based on the development of logical formal propositions and the integration of Cordemoy's explorations between form and structure. It is precisely this language based on a clear and rigorous logic (which excludes scientific empiricism) that makes Boullée and Ledoux rationalists even though their work was categorized as visionary and utopian.⁸¹ This perception, however, is absolutely important, as both Aldo Rossi and Giorgio Grassi will elaborate on this rigorous logic, which Rossi defines *razionalismo esaltato*⁸² and that Grassi uses it as a way to elaborate a formal process based on clarity, simplicity, and coherence, keeping excessive formal and rhetorical experimentations out of his practice.⁸³ Another significant observation toward an understanding of rationalist logic is given by Boullée's observation that architecture is an autonomous discipline that

⁸⁰ J.N.L. Durand, *Précis of the Lectures on Architecture: With Graphic Portion of the Lectures on Architecture*, (Los Angeles: The Getty Research Institute Publications, 2000), 80.

⁸¹ Kenneth Frampton, *Modern Architecture: A Critical History*, (London: Thames and Hudson, 2007). 14.

⁸² Literally "exalted rationalism." See Aldo Rossi, *Scritti Scelti*, (Milano: Citta Studi Edizioni, 1995), 351.

⁸³ Giorgio Grassi, *La Costruzione Logica Dell'Architettura*, (Venice: Marsilio, 1966), 94.



Figure 2. Abbé Laugier, *The Primitive Hut*. In Sandro Raffone, *Il Parere su L'Architettura*, (Napoli, CLEAN 1993), 11.

keeps regenerating on his own forms and techniques; in fact, the very idea of autonomy represents an additional development that will be enormously applicable to the establishment of the architectural discourse of *Tendenza* and consequently to the theoretical elaborations of the XV Triennale of 1973.⁸⁴

While Ledoux and Boullée's theoretical work focuses on the recognition of a formal language based on clarity and purity of form, Jean Nicolas Louis Durand's work calls more attention to the process of classification, which is accomplished by recognizing buildings' functions and forms under related categories. Similarly to Sebastiano Serlio, Durand produces sets of geometrical diagrams that are intended to produce a pragmatic universal methodology based on the pursuit of normative building types. Following the dictates of his master Françoise Blondel, Durand proposes a rationally ordered process of categorization that extracts and exposes general principles of form making. The *Précis des leçons d'architecture données à l'École royale polytechnique*,⁸⁵ published in 1809, is particularly characterized by a collection of building types analyzed diagrammatically and geometrically. This process allowed for the recognition of dominant geometric patterns, in plan and elevation, which could create more economic and appropriate structures through formal alterations of the same. It is interesting to point out that the methodological work of Saverio Muratori, who operated around the 40s and late 60s and whom I am going to analyze later for his

⁸⁴ See K. Michael Hays, *Architecture Theory Since 1968*, (Cambridge MA: MIT Press, 2000), 124. This excerpt was also published in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale*, (Milano: Franco Angeli, 1973), 153-188.

⁸⁵ Also published in English under the title *Précis of the Lectures on Architecture: With Graphic Portion of the Lectures on Architecture*, (Los Angeles: The Getty Research Institute, 2000).

extreme relevance to the theoretical discourse of *Tendenza*, explored the same typological premises discussed by Durand while developing his narrative for an operative history of the urban fabric in Venice and Rome (Figure 3, 4, 5).⁸⁶

Accordingly, these cultural ramifications of the Enlightenment produced very interesting architectural propositions generally referred as romantic classicism and structural classicism (also known as structural rationalism). However, while the romantics focused on the importance and elaboration of form that was mostly achieved by the use of pure volumes (Ledoux, Boullée, Durand and Schinkel above all), the structural classicists (Cordemoy, Laugier, and Henri Labrouste) tried to emphasize the importance of structural elements and their formal integration with other building systems.⁸⁷ Interestingly enough, some of the rational principles based on the composition of volumetric form and the articulation of structural elements and tectonics, which were basically shared by those two Neo-classical factions, will be ideologically, conceptually, and architecturally developed through the end of the Nineteen Century and the beginning of the Twentieth Century, eventually establishing the intellectual and methodological foundations of architectural modernism in what is historically known as Protorationalism, an historical moment that preceded the instance of rationalist architecture.

⁸⁶ See Saverio Muratori, *Studi per una Operante Storia Urbana di Venezia. I: Quadro generale dalle origini agli sviluppi attuali*, in 'Palladio', n. 3-4, 1959, poi in vol., Roma, Istituto Poligrafico dello Stato, 1960, and Saverio Muratori, Vita e storia delle città, in *Rassegna critica di architettura*, n. 11-12, 1950, pp. 3-52.

⁸⁷ Ledoux, Boullée, Durand, and Schinkel are usually linked to the Romantic Classicists while Cordemoy, Laugier, Labrouste, and Soufflot are linked to the Structural Classicists. The first group will be fundamental in shaping the formalist premises of *Tendenza*.

Part II. Composition in General

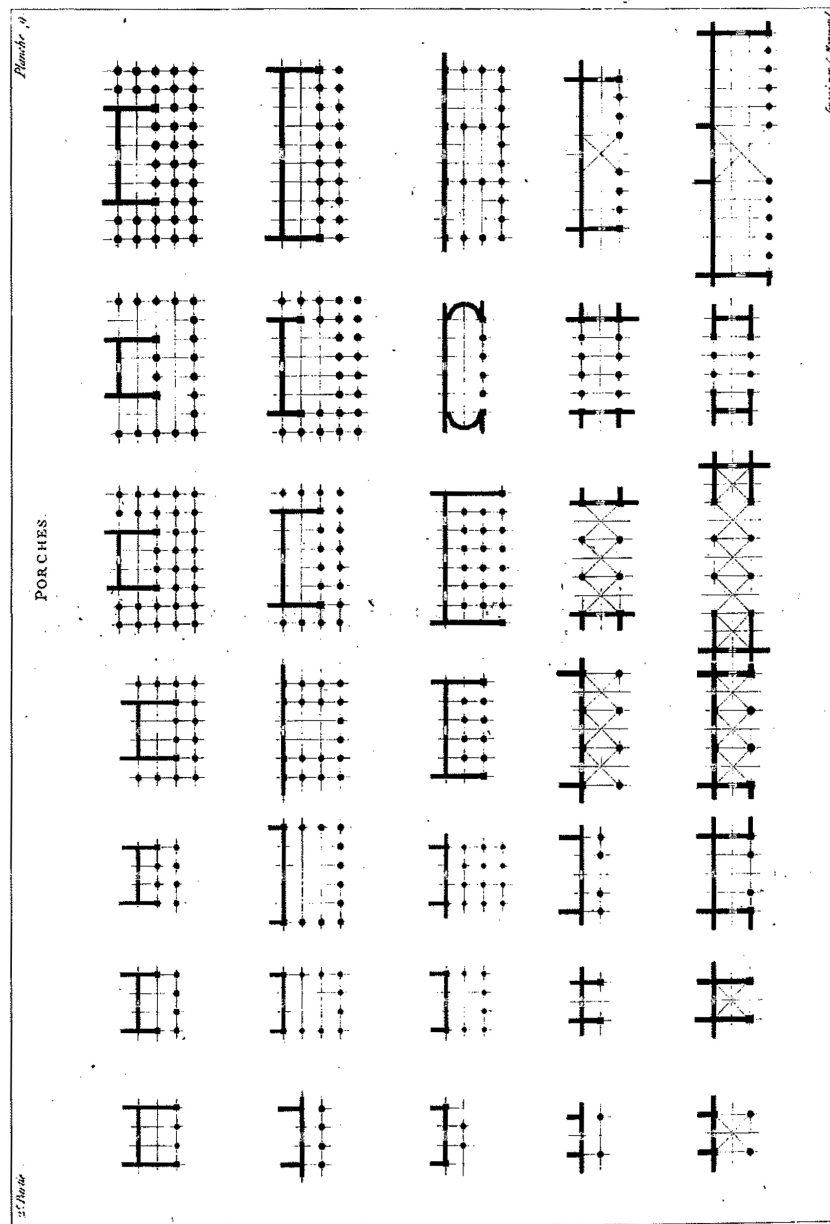


Plate 9

Figure 3. Composition in General, Plate 9 from J.N.L. Durand. In *Précis of the Lectures on Architecture: With Graphic Portion of the Lectures on Architecture*, (Los Angeles: The Getty Research Institute, 2000).

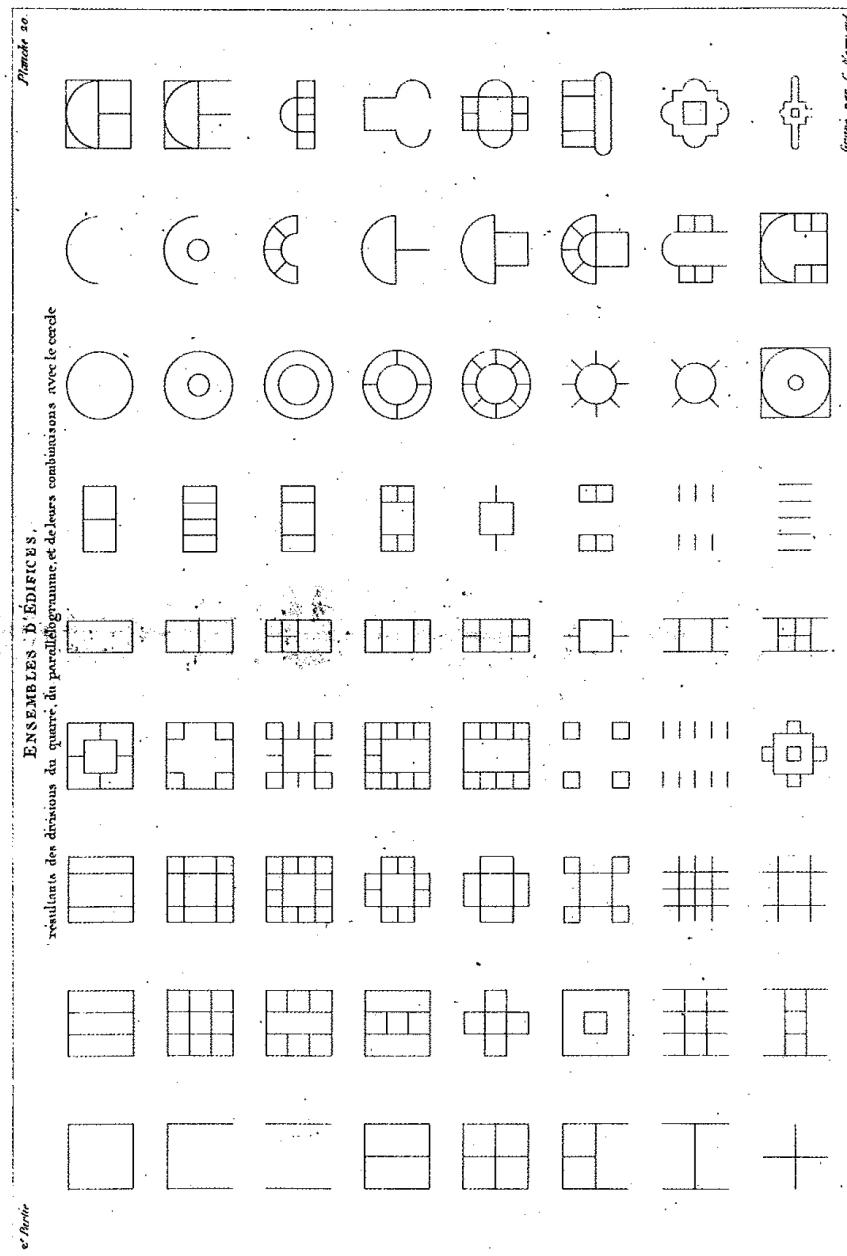


Plate 20

Figure 4. Volume One, Plate 20 from J.N.L. Durand. In *Précis of the Lectures on Architecture: With Graphic Portion of the Lectures on Architecture*, (Los Angeles: The Getty Research Institute, 2000).

Part II. Composition in General

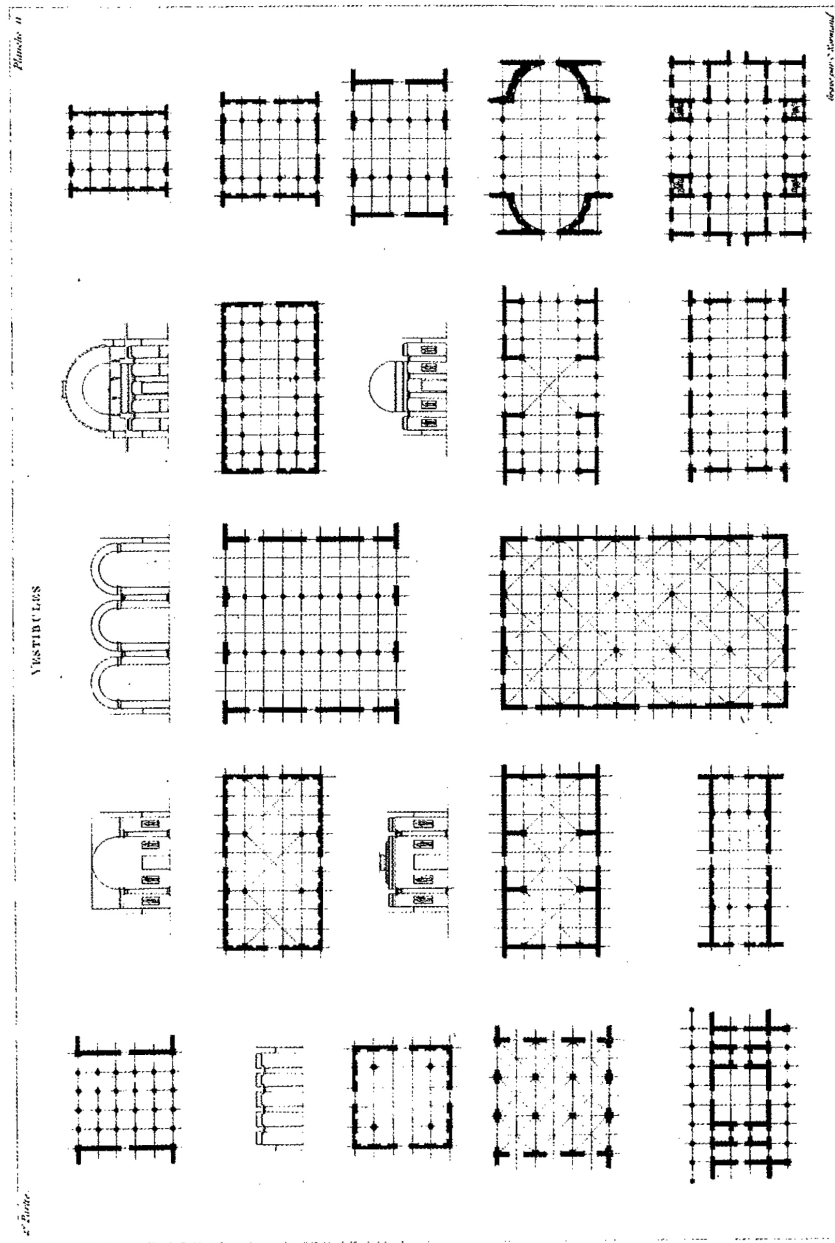


Plate 11

Figure 5. Composition in General, Plate 11 from J.N.L. Durand. In *Précis of the Lectures on Architecture: With Graphic Portion of the Lectures on Architecture*, (Los Angeles: The Getty Research Institute, 2000).

From *Protorazionalismo* to an Architecture of Tendenza

The cultural premises of Neo-Classicism, based on classical and structural rationality, ended up triggering a new transitional tendency, which anticipated the birth of modernism and which was labeled as *Protorazionalismo*.⁸⁸ Giuseppe Persico, a prominent Italian architect and critic who also worked as an editor for *Casabella* under Giuseppe Pagano, was the first to acknowledge the presence of a intermediary architectural language which was struggling between aesthetical, socio-economical, political and compositive issues. All those peculiarities were the result of a restless search for an appropriate national style, which would finally define the spirit of the modern age.

These propositions not only embodied both formal and structural characteristics common to the methodologies carried during the years of the Enlightenment by Cordemoy, Laugier, Durand, Boullée, and Ledoux, but they also presented a new technological component that had greatly improved the building process. In a specific issue of *Casabella* in 1935, Persico, while analyzing Palais Stoclet designed by Joseph Hoffmann between 1905 and 1910, noted that the highly decorative style common to the architects of the so called Viennese Secession had finally turned into a more linear composition that emphasized purity of volumes (Figure 6).⁸⁹ This new attitude was defined *Protorazionalismo*, or Pre-Rationalism, as it anticipated the methodological process based on the reduction of decorative elements toward a better understanding of

⁸⁸ Renato De Fusco, *Dentro e Fuori l'Architettura: Scritti Brevi (1960-1990)*, (Milano: Jaca Book, 1992), 58.

⁸⁹ See *Casabella. Rivista di architettura e Tecnica*, n. 91 (July 1935).



Figure 6. Palais Stoclet, by Joseph Hoffmann, 1911. (Image by Klaas Vermass. From <http://www.flickr.com/photos/klaasfotocollectie/3032199062/>).

volumetric and formal issues common of rationalist architecture. The Dutch architect Hendrik Petrus Berlage went further by integrating issues of structural integration and ornamental reduction with newfound socialist propositions common within the new Dutch middle class. Upon a review of his Amsterdam Exchange (Figure 7), Persico had individuated the same Protorationalist tendency dictated by a methodological inclination toward a new approach that refused revivalist or eclectic methods and which focused more on tectonic clarity typical of the work of Viollet-le-Duc.⁹⁰ This new attitude demarcated a particular moment in time when similar methodological ideas, which derive from the cultural production of the Enlightenment, produce heterogeneous buildings that were hard to classify from a stylistic point of view.

Yet, if we look at the theoretical production of Hoffmann, Wagner, Loos, Tessenow, and Perret, we can recognize a common rationality, both formal and analytical, which essentially makes such a group of architects more homogeneous to the extents that we could categorize them as progenitor of a rational modernity. This notion of a raw rationalism was also evident in Scandinavia where the early work of Eric Gunnar Asplund showed some formal and architectural traits common to the *Wagner Schule*, which was basically characterized by a geometric reduction that presented no major ornamentations while emphasizing its volumetric purity (Figure 8 and 9).⁹¹

⁹⁰ Kenneth Frampton, *Modern Architecture: A Critical History*, (London: Thames and Hudson, 2007). 71.

⁹¹ Ibid., 72.



Figure 7. Hendrik Petrus Berlage: Amsterdam Stock Exchange (Image by Author).



Figure 8. Gunnar Asplund: Stockholm Public Library, Main Entrance. (Image by Sam Taigen, JPG, <http://www.archdaily.com/92320/ad-classics-stockholm-public-library-gunnar-asplund/stockholm1/>).

Adolf Loos elaborated the same principles in his writings *On Architecture and Ornament and Crime*, in which he stated that “*Architecture is not art: only a small part of architecture belongs to art.*”⁹² Adolf Loos, who was born in Brno in Moravia in 1870, studied at the Dresden Polytechnic under the supervision of Gottfried Semper. After a brief experience in the USA, he finally settled in Vienna in 1896. During that time, he started writing essays initially conceived as simple lectures but that will eventually end up in his two major collection of writings where Loos wanted to show how backward life and culture was in Vienna compared to the American and English lifestyle which he defined superior and more pragmatic.⁹³

The first essay appears in 1896 in his first collection *Ornament and Crime*, and it deals in particular with the Viennese School of Applied Arts. In his first critical writing, Loos condemns the work of the school of the Austrian Museum as stagnant and repetitive.⁹⁴

*We conclude in the hope that this might be the last such exhibition. Craftwork is presumably about to receive its due. The new director Hofrat A. von Scala has brought a new spirit into the building. May this spirit be strong enough, and ruthless enough to play the master toward the old genius loci. The arts and crafts in Austria expect it.*⁹⁵

Loos thinks that the school itself is stuffed with wrong ideas and no knowledge of materials whatsoever. Loos also rejects the formations of a new arts and crafts movement that looks flat, rigid, and that lacks enthusiasm. The best way to reorganize

⁹² Adolf Loss, *Ornament and Crime*, (London: Ariadne Press, 1998), 14.

⁹³ Ibid., 12.

⁹⁴ Ibid., 14.

⁹⁵ Ibid., 15.

this educational structure is what Loos calls revolution, or a drastic return to the craftsman's workshop, and the understanding that architecture is not an individualistic practice, but it has to satisfy effective formal and functional needs.

This anti-individualist tendency was also promoted by Heinrich Tessenow, who stated that *"if a building is finished and you don't recognize the architect in it, then it is right: the goal is to make the architect superfluous."*⁹⁶ It is interesting to point out that Tessenow is one of those architects that practiced in a very coherent way, following those ideals of rationality that make his work unambiguous. Although often criticized as too ingenuous or naïve because of its austerity and simplicity, Tessenow's Festspielhaus Hellerau (Figure 9) is a good example of rational architecture, and it is properly this rigor that excludes aesthetical issues and focuses more on the real problems of architecture that will impress those related to the intellectual discourse of *Tendenza*.

*Rossi's typological research is confined, not coincidentally, to self-description: the type, motionless, does not make history, its repetition and being repeated recalls' Tessenow's will for naïveté.*⁹⁷

This unequivocal methodology is undoubtedly characterized by an extreme formal reductionism, but its precision is undeniable, and in the absence of a precise approach, clarity becomes absolutely fundamental in producing an architectural tendency.⁹⁸ Tessenow's understanding of architecture as a product of artisanal labor is mostly characterized by the designation of architecture's own limits, or what Giorgio

⁹⁶ Heinrich Tessenow, *Catalog for Tessenow Exhibition at the Academy of Applied Arts*, (Vienna, 1980).

⁹⁷ Manfredo Tafuri, *History of Italian Architecture 1944-1985*, (Cambridge: MIT Press, 1990), 138.

⁹⁸ See Giorgio Grassi, *Scritti Scelti 1965-1999*, (Milano: Franco Angeli, 2000), 325.



Figure 9. Heinrich Tessenow: Festspielhaus Hellerau in Dresden. (Image from <http://www.das-neue-dresden.de/landesschule-tessenow.html>).

Grassi defines the absence of invention, which according to the Milanese architect is not a required architectural skill.⁹⁹

The continuity of this rational proposal found multiple expressions at the very beginning of the twentieth century. In fact, the cultural and architectural production of various movements such as the Deutsche Werkbund, The Glass Chain, The Bauhaus, and the respective work of Walter Gropius, Hannes Meyer, Hans Schmidt, Mies van der Rohe, and Le Corbusier, although very heterogeneous, is often characterized by a formal reduction, or what Frampton calls monumentalization of technique, all peculiarities analyzed during the years of the Enlightenment by Durand, Boullée, Ledoux, Viollet-le-Duc, and Labrouste.¹⁰⁰

In Italy, the understanding of a rationalist practice was mostly characterized by an assimilation of those architectural movements that distinguished modernism such as the Deutsche Werkbund or the Bauhaus. This consideration found expression in two different Rationalist schools: the more conservative school of Rome represented by Marcello Piacentini, and the more radical school of Milan represented by the Gruppo 7. However, after the initial experimentations of the austere Milanese Novecento, which were showcased by the work of Giovanni Muzio (Figure 10), Giuseppe De Finetti and Piero Portaluppi,¹⁰¹ Italian architecture finally found its true modern expression in the

⁹⁹ Also see Giorgio Grassi, “The Limits of Architecture”, in *Architectural Design*, no.52, 1982, 43-49.

¹⁰⁰ Kenneth Frampton, *Modern Architecture: A Critical History*, (London: Thames & Hudson, 2007).

¹⁰¹ Giovanni Muzio’s Ca’Brutta is probably the best example of Milanese Novecento, which represents an hybrid proposition between Milanese Neo-Classicism and early Protorational work (Figure 11).



Figure 10. Giovanni Muzio, Ca' Brutta, Milan, Detail of the Façade. (Image by Author).

propositions and work of Gruppo 7, which were basically anti-dogmatic but also classicists with respect of the work produced by the architects of the Enlightenment.¹⁰²

Current opinion holds that our time is one of confusion and disorder in the field of art. This was so, and perhaps it was so even recently, but today it is certainly not the case. We have gone through a long period of formation, which has, now matured, and it was the work of this formative period that caused a general sense of disorientation (Perhaps even the men of the first years of the Quattrocento felt disoriented: a comparison cannot be too bold, since we are truly on the threshold of a great period). A "new spirit" has been born.¹⁰³

Fundamentally, Gruppo 7 recognized the presence of a new spirit, which had been developing almost everywhere in Europe, and they also presented their new progressive approach to architecture by identifying logical solutions as an indispensable methodology toward the creation of a new architecture. This proposition avoided any form of historical eclecticism or extreme functionalism, while it also proposed the necessity of a typological methodology as a way to produce new types more responsive to current problems. Gruppo 7 also proposed that there is no incompatibility between past and present, so that the new architecture does not break completely with its contextual traditions. It is by recognizing national traditions and other contextual elements that a new modern architecture can emerge, but most importantly, it is by critically looking into history that we can find answers to the future.¹⁰⁴

¹⁰² Gruppo 7 included Ubaldo Castagnoli, who was eventually replaced by Adalberto Libera, Luigi Figini, Gino Pollini, Guido Frette, Sebastiano Larco, Carlo Enrico Rava, and Giuseppe Terragni. Alberto Sartoris published several books on the evolution of the *Modern Movement in Italy: Architettura Razionale* in 1931, *Gli Elementi dell'Architettura Funzionale* in 1935, and the *Encyclopedie de la Architecture Nouvelle* in 1948.

¹⁰³ Dennis Doordam, *Building Modern Italy*, (Princeton: Princeton Architectural Press, 1988), 45.

¹⁰⁴ Ibid, 47.

Within this Italian framework, the studio B.B.P.R.¹⁰⁵ proposed a similar anti-dogmatic tendency that would acknowledge the importance of historical analysis, and that would also recognize the propositions of major modernist approaches, which were identified in the work of Loos, Tessenow, Gropius, Mies van der Rohe, and Le Corbusier. Most importantly, Ernesto Rogers, the mastermind behind the methodological explorations of B.B.P.R., stated, “*the central point regarding history is that of understanding what is essential. In fact, this is what we should teach from the beginning.*”¹⁰⁶ Thus, history was accepted as an informative element that is totally integrated with the design process, although it did not propose any sort of stylistic or formal guideline.

Interestingly, this rational position in which “*everything that is useful is beautiful*”¹⁰⁷ never disappeared, but it remained very well alive mostly because of the presence of strong academic personalities such as Ernesto Rogers, Ludovico Quaroni, and Giuseppe Samoná who all represented the cultural and intellectual link between the early rationalism characterized by the search for a modern approach and the newfound rationalism proposed by Aldo Rossi and *Tendenza*, which also anticipated a return to architecture and its own forms and rules, setting up the basis for an autonomous discipline.

¹⁰⁵ BBPR is Gian Luigi Banfi, Ludovico Belgiojoso, Enrico Peressutti and Ernesto Rogers.

¹⁰⁶ Ernesto Nathan Rogers, *Gli Elementi del Fenomeno Architettonico*, (Napoli: Guida, 1990), 37.

¹⁰⁷ Ignazio Gardella, *Ignazio Gardella 50 Years of Architecture: Exhibition and Catalogue*, (Cambridge MA: Harvard, 1986), 10

Framing the Concept of Autonomy

Generally and philosophically speaking, the term autonomy refers to a self-contained attitude, which relates to an individual's ability to govern himself based on a moral and political system of values.¹⁰⁸

According to Immanuel Kant, the only way we can understand the regressive causation of the whole with respect to its parts is by analogy to intelligent design, in which an antecedent conception of the object as a whole establishes the production of the parts, which in turn determine the character of the resultant whole.¹⁰⁹ However, Kant insists, we have absolutely no justification for adopting a constitutive concept of natural organisms as a product of actual design; we are only entitled to use an analogy between natural organisms and products of design as 'a regulative concept for reflective judgment to conduct research into objects in a remote analogy with our own causality in accordance with purposes. In his *Critique of Judgment*, a work that defines the foundations of modern aesthetics, Kant applies his concept of autonomy to art and aesthetic in order to detach the work of art from any sort of practical functionality. By doing so, Kant isolates artistic and creative spirit identifying those driving forces within the discipline of art, and dissociating it from the praxis of bourgeois society.¹¹⁰

Alois Riegl, an Austrian art historian very active within the Vienna School of Art History, also implemented a similar approach. Riegl develops the notion of *Kunstwollen*, or will to art. This concept describes a continuous and autonomous history of ornament.

¹⁰⁸ Jerome Schneewind, *The Invention of Autonomy*, (Cambridge: Cambridge Press, 1998).

¹⁰⁹ Immanuel Kant, *The Critique of Judgment*, (Oxford: Oxford University Press, 1978).

¹¹⁰ Peter Bürger, *Theory of the Avant-Garde*, (Minneapolis: University of Minnesota Press, 1984), 46.

Riegl followed ornamental motifs from ancient near eastern through classical and up into early medieval and Islamic art, developing the idea of a *Kunstwollen*. Riegl seems to have conceived the *Kunstwollen* as a historically contingent tendency of an age or a nation that drove stylistic development without respect to tectonic and technological concerns.¹¹¹

In terms of art aesthetics, Herbert Marcuse defined Marxist approach to art as a sort of critical dogma. In his concept, art is treated as ideology where its foundations are continuously reexamined in a sort of self-reflective system. Marcuse established the connection between art and the material bases as well as between art and the totality of its production. Art itself is always transformed, and it never ceases to exist. There is only art and its infinite variations.¹¹²

Theodor Adorno also affirms the autonomy of art. In his case, autonomy becomes a response to those who wanted to restore art by giving it a social function. Adorno believes that art suffers from a sort of blindness, which he describes as the uncertainty over which purpose it might serve. Artwork detaches itself from the empirical world and brings forth another parallel domain with its own rules. This tendency also leans to emphasize the social purpose of art reinforcing the belief of totality of Marxist approach.¹¹³

¹¹¹ Also see Alois Riegl, *Late Roman Art Industry*, (Rome: Bretschneider, 1985).

¹¹² See Herbert Marcuse, *The Aesthetic Dimension: Toward A Critique of Marxist Aesthetics*, (Boston: Beacon Press, 1979).

¹¹³ Theodore Adorno, *Aesthetic Theory*, (Minneapolis: University of Minnesota Press, 1998).

Between Linguistics and Architecture

*Our definition of a language assumes that we disregard everything, which does not belong to its structure as a system; in short everything that is designated by the term 'external linguistics.'*¹¹⁴

The field of linguistics has also adopted this self-referential and autonomous framework. Functional analyses of grammatical phenomena and the functionalist approach that promotes them are appealing to those who believe that an internal understanding of language structure is very desirable.¹¹⁵ Peirce, de Saussure, Barthes, Langer, and Levi-Strauss have all agreed upon the concept that human civilization is dependent upon signs and system of signs, and that the human mind is inseparable from the functioning of signs.¹¹⁶

Arbitrariness and self-containedness are an explication of autonomous thinking in syntax and grammar.¹¹⁷ Following this logic, Chomsky stated that syntax and grammar are regulated by sets of non-semantic and non-discursive properties that don't refer to external systems or factors.¹¹⁸ Obviously this definition has been challenged by Post-Structuralist thinkers such as Deleuze and Derrida who have utilized a variety of perspectives to create a multifaceted interpretation of a text, even if these interpretations conflict with one another. It is particularly important to analyze how the meanings of a text shift in relation to certain variables, usually involving the identity of the reader.

¹¹⁴ Ferdinand de Saussure, *Course in General Linguistics*, (Chicago: Open Court, 1986), 41

¹¹⁵ Ibid, 45.

¹¹⁶ William Croft, *Cognitive Linguistics*, (Cambridge: Cambridge University Press, 2004).

¹¹⁷ Ibid.

¹¹⁸ Noam Chomsky, *Language and Mind*, (Cambridge: Cambridge University Press, 2006).

During the last 30 years, language has been often used and associated to the production of architecture. Within this context, the work of Peirce, and de Saussure has gained importance as it has been used to compare architecture to linguistics and grammar, also suggesting that buildings, like sentences, are constructed combining elements according to a set of rules. This Structuralist approach is based on the understanding that language is a self-contained system of signs.¹¹⁹ Signs are composed by a signifier (form), and a signified (content). Thus, considering the interdisciplinary importance of structural linguistic, I believe it is opportune to analyze certain concepts that might explain or justify the search for autonomy.

The field of linguistics is characterized by two major approaches: functionalism, and structuralism. It is commonly agreed that many aspects of human linguistics can be explained in terms of the function of the language since some basic facts of syntax can be accounted for in functional terms.¹²⁰ Structuralism, instead, tries to explain linguistics in terms of generative grammar. Within this framework, it is important to note that when structuralism and functionalism merge, language becomes autonomous.¹²¹ The autonomy debate of the 1970s focused around the status of syntax and its relationship to semantics. Individuals were capable to generate different levels of grammatical competence. During the 1980s the focus shifted to a more contextual understanding of generative grammar: language formation and acquisition use were now associated to the place. William Croft has argued that the autonomy of linguistics could be broken down

¹¹⁹ Ferdinand de Saussure, *Course in General Linguistics*, (Chicago: Open Court, 1983).

¹²⁰ William Croft, *Cognitive Linguistics*, (Cambridge: Cambridge University Press, 2004).

¹²¹ See William Croft, "Autonomy and Functionalist Linguistics," in *Language*, Vol. 71, No. 3 (Sep., 1995), pp. 490-532.

into two claims: syntax is arbitrary and not autonomous, and syntax is self-contained and autonomous.¹²²

Grammar is used to refer to an individual's knowledge of their language. Therefore, grammar is inclusive as it includes knowledge of syntax, semantics, and syntactic. Semiotic function is understood as signified (form) while syntax represents the signified (content).¹²³ Consequently, grammar is a semiotic system that includes both semantics and syntax. As mentioned earlier, semantic was a strong component of grammar and thus autonomous; however, during the 1980s, critics, mostly Post-Structuralists, argued that social identity and social context changed the formation of grammar and consequently language structuring. French philosopher such as Jacques Derrida and Michel Foucault developed a different understanding of structural linguistics and the formation of language. Foucault, particularly, argued that signs compose the formation of the objects of a discourse; yet, discourses do more than use signs. This proposition can be reduced to the understanding of those rules that allow discourses to form as objects. It is then about understanding patterns of linguistic formation, and those generative processes that show differences.¹²⁴

According to the study of structural linguistics, autonomy can be associated to what Chomsky has called generative grammar. Chomsky and Newmeyer expressed that *“there exists a set of non-semantic and non-discursive-derived grammatical properties*

¹²² Ibid, 498.

¹²³ See, Noam Chomsky, *Aspects of the Theory of Syntax*, (Cambridge: MIT Press, 1969).

¹²⁴ Michel Foucault, *The Archeology of Knowledge* (New York: Pantheon, 1982), 44.

whose principles of combination make no reference to system external factors.”¹²⁵

Therefore, syntax can be arbitrary, and it can participate to a system, which is self-contained.¹²⁶ Arbitrariness is a very important concept. In linguistics, arbitrary is defined as a syntactic component that contains rules that can’t be derived from any external system. Therefore, syntactic rules and elements cannot be replaced, as they always produce different results in terms of generative grammar. Essentially, and according to both Chomsky and Newmeyer, arbitrariness is a property of the mapping between form and semiotics.¹²⁷ Chomsky has often referred to the concept of independent grammar. This concept is based on the arbitrariness of syntax, which he calls autonomy. Autonomous syntax is then a system of interlocking regularities that governs the construction of language. This system is self-contained if the regularities interact with each other but not with other external systems.¹²⁸ I believe that it would have been interesting to analyze situations when those interlocking regularities present patterns that can be exported to other systems. I think this framework would help us understanding why certain rules can be exported and applied to other disciplines while other are exclusive. Architecture might represent a valid case study, as it is a discipline that has been influenced by a number of external and interdisciplinary forces.¹²⁹

¹²⁵ Frederick Newmeyer, *Language Form and Language Function*, (Cambridge: The MIT Press, 1998), 18.

¹²⁶ Ibid, 18.

¹²⁷ William Croft, *Cognitive Linguistics*, (Cambridge: Cambridge University Press, 2004).

¹²⁸ See William Croft, “Autonomy and Functionalist Linguistics,” in *Language*, Vol. 71, No. 3 (Sep., 1995), pp. 490-532.

¹²⁹ Noam Chomsky, *Aspects of the Theory of Syntax*, (Cambridge: MIT Press, 1969).

Susan Langer's work also analyzes issues of grammar formation. Her work focuses on the uncovering of semantic and syntactic bases for the distinction between symbols. Langer goes beyond the tangible structure of linguistic production; however, she uses the same logic to understand the morphology of feelings, which appears in presentational forms. Her methodology is important because it was applied to the understanding of how in art we produce true symbols with highly articulated meaning and logical form. The concept of logical and symbolic form allows us to see art as emerging out of innate perceptions that are raised to a higher power by the general procedure of symbolism. Aesthetic is then defined in a semiotic way as it involves logical form. In fact, when the word goes through changes of form, it does not change shape. In Langer's work the concept of form is not explicit, but it comprises an understanding of internal elements that are not immediately perceivable. In her work, the best way to recognize common form is by analogy. A diagram could be explained as an analogical proponent that represents a given building because it does not symbolize its essence and materially, but it embodies the generative idea behind it.¹³⁰

Michel Foucault has also approached the discourse of autonomy in linguistics. However, he believed that every society controlled the production of discourse at some point in history. The main assumption here is that we are not free to be individuals, if institutional forms of power are organized around rigid rules that govern the production of language. Instead of contesting this idea of autonomy, Foucault argued that prohibitions, imposed by a governing agent, have created a system or a matrix of rules

¹³⁰ See Susan Langer, *Feeling and Form*, (Upper Saddle River: Prentice Hall, 1977).

that represent the domain of generative linguistics. Within this matrix, language keeps regenerating itself in a sort of constrictive autonomy. This concept is very interesting because it allows us to predict how flexible an autonomous system can be. If the generative rules are known and clear, then we can expect specific formative patterns.¹³¹

Charles Peirce's work is based on a constant understanding of the relationships between signs. For Peirce, everything is a sign in its relation with its context; this relationship is governed by the sign, the object, and its interpretant, which is intended as a sign of the object or a further ramification of the same.¹³² Umberto Eco adopts a similar approach. In fact, he regards language as univocal and deferring to infinite meaning in which every cultural phenomenon can be studied as communication of some sort. In his seminal work *La Struttura Assente*, Eco states that:

*Se la semiologia non è solo la scienza dei sistemi di segni riconosciuti come tali, ma la scienza che studia tutti i fenomeni di cultura come se fossero sistemi di segni – basandosi sull'ipotesi che in realtà tutti i fenomeni di cultura siano sistemi di segni, e cioè che la cultura sia essenzialmente comunicazione – uno dei settori in cui la semiologia si trova maggiormente sfidata dalla realtà su cui cerca di far presa è quello dell'architettura.*¹³³

However, Eco develops this idea of the ideal reader that is open to the multiplicity of language. Eco is interested in general codes, which he categorizes as autonomous entities that refer to the structure of language. In his article *Function of*

¹³¹ Michel Foucault, *The Archeology of knowledge* (New York: Pantheon, 1982), 215.

¹³² Robert Innis, *Semiotics: An Introductory Anthology*, (Bloomington: Indiana University Press, 1985), 4.

¹³³ If semiology is not only the science of signs but also the science which studies all the cultural phenomena as if they were systems of signs - based on the understanding that all cultural phenomena are systems of signs and that culture is communication – one of the sector in which semiology is mostly challenged is architecture; (my translation); Umberto Eco, *La Struttura Assente*, (Milano: Bompiani, 2004), 190.

Signs: Semiotic of Architecture, Eco applied his general theory of semiotics published in 1979 to the question of architecture.¹³⁴ He notes that architecture is primarily understood functionally even though it also communicates. Architecture is mass communication, and Eco clearly understands that. He also believes that architects should be able to understand this dualism in order to design buildings that function and communicate.¹³⁵ Architecture can be also explained as a system of signs. Giovanni Klaus Koenig has also tried to explain architecture using the reference to sign. He went as far as stating that when architects create system of signs, or buildings, they also create structures that promote certain behaviors.¹³⁶

Indeed, firm believers see architecture as having its own problems and its own way of thinking, independent of any other concern. The basic perception is that architecture is a pure reiteration of the formal without any political or sociological implication. Ancient Greeks had developed a design system based on the clarity and harmony of proportions, in which Socrates believed that the beautiful was superior to the purpose or function. Specifically, this formal understanding of architecture revealed a new attitude toward those formal patterns that could be reapplied under several circumstances.

Unlike Vitruvius, whose ideas where quite vague and generic, Alberti, in *Ten Books on Architecture*, introduced the notion that architectural form is the production of formal norms whose ultimate warrant is to pleasure the viewer. There is then an obvious

¹³⁴ This article was initially published in Umberto Eco, *La Struttura Assente*, (Milano: Bompiani, 2004), 189-191.

¹³⁵ Ibid, 194.

¹³⁶ Ibid., 197.

autonomous agent in man seeking visual pleasure, which is also supported by this formalist approach and not only. In fact, Alberti also identifies a set of attributes that are supposed to communicate the building as a purely formal structure; those elements are order, size, number, color, and form. Sebastiano Serlio uses a similar strategy in his *Five Books of Architecture* where he uses illustrations to categorize buildings according to shapes and forms¹³⁷.

However, Serlio focuses on building with irregular forms (Figure 11). This notion supports the idea that, even under certain site constrictions in terms of shape grammar, we might look at specific formal models, which can be eventually repeated. I found this concept to be very important because it suggests the idea of regenerative types, which react to the city rather than being absorbed by it. On the other hand, early functionalists argued that form is not autonomous because it is rather an instrument for achieving firmness or structural stability. In a way, they also argued for autonomy, but of function rather than form.

During the Enlightenment, Etienne Louis Boullée observed that architecture is autonomous since it keeps referring to particular forms and techniques, while Durand proposed taxonomy of building types that could be regenerated by altering their internal and geometric code. The Austrian art historian Emil Kaufmann revisited Kant's suggestion of autonomous artistic will, and applied it to a reading of French Eighteenth-century architecture.¹³⁸

¹³⁷ Ibid., 198.

¹³⁸ Anthony Vidler, "The Ledoux Effect: Emil Kaufmann and the Claims of Kantian Autonomy and Kant," in *Perspecta* 33 (May 2002), 19.

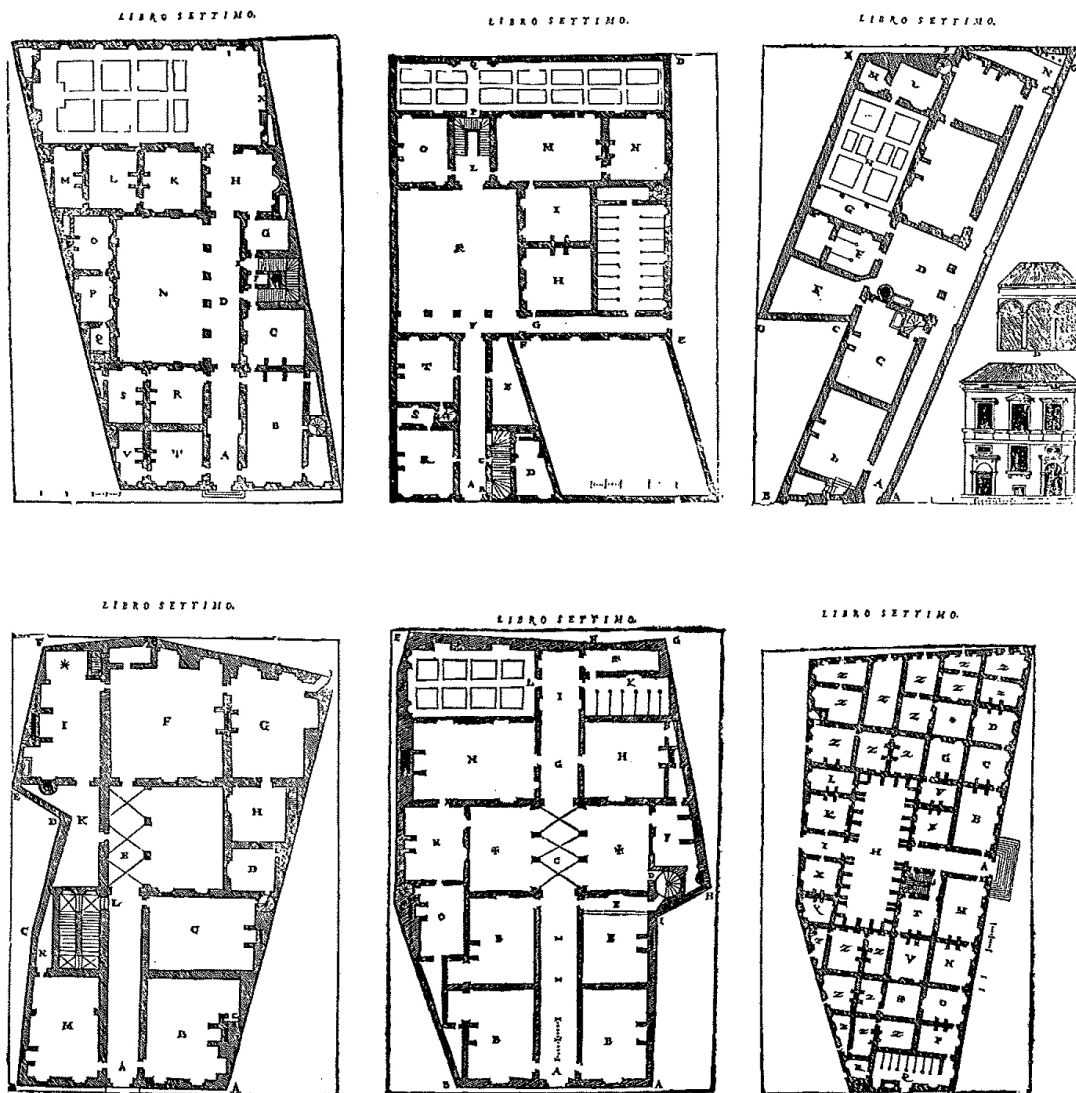


Figure 11. Sebastiano Serlio, Studies of Floor Plan Anomalies. (Sebastiano Serlio, *The Five Books of Architecture*, (New York: Dover Publications, 1982).

*At the time when Kant rejects all the moral philosophies of the pasts and decrees the autonomy of the will as the supreme principle of ethics, as analogous transformation takes place in architecture. In the sketches of Ledoux these new objectives appear for the first time in all their clarity. His work marks the birth of autonomous architecture.*¹³⁹

Kaufmann understood architecture as an expression of logical rules totally independent of empirical conditions, and he saw in Ledoux the best example of this autonomous methodology.¹⁴⁰ In fact, Ledoux operated by proposing pure, geometric and repetitive forms, an approach that was elaborated later on by Adolf Loos and Le Corbusier. Even Philip Johnson briefly played with the notion of architectural autonomy while explaining the purist nature of his Glass House in New Canaan, but his autonomous approach was mostly based on a freedom to change approach and play with architectural styles in a sort of eclectic way.¹⁴¹

During the early 70s, Charles Jencks, Geoffrey Broadbent and Dick Bunt reevaluated the work and the writings of de Saussure as a way to reframe his theory of signs and propose an autonomous architectural manner.¹⁴² If we agree that generative linguistics is autonomous in terms of syntax, then we can imply that architecture, as system of signs, can be autonomous as well since it is based on a repetition or reassessment of them. The major problem is this understanding of architecture as a system that combines stylistic elements. Post-Modernists believed in this framework, while they saw the application of a generative process as a way to reshuffle styles and

¹³⁹ Ibid.,19.

¹⁴⁰ Hubert Damish, "Ledoux and Kant," in *Perspecta* 33 (May 2002), 10.

¹⁴¹ Ibid.,11.

¹⁴² See Charles Jencks and George Baird, *Meaning in Architecture*, (New York: Barrie & Jenkins, 1970) and Geoffrey Broadbent and Charles Jencks, *Signs and Symbols in Architecture*, (New York: John Wiley, 1980).

other architectural elements to recover a lost meaning. Everything that can be seen takes on a meaning, a highly historicized one. Needless to say, this process of borrowing from the field of linguistic fueled the production of Post-Modern architecture, justifying an understanding of autonomy that is more ornamental than analytic, and that will motivate architectural and urban works such the eclectic Piazza D'Italia, designed by Charles Moore in collaboration with Perez Architects, where a collage of historical architectural elements had been used to generate an autonomous stylistic framework (Figure 12).

However, the Italian group of *Tendenza* will end up looking at the concept of autonomy quite differently, proposing an alternative rational and analytical tendency based on the integration of urban and typological studies as a way to keep architecture fully grounded into its own cognitive domain saving the discipline from revivalist and interdisciplinary solutions. Thus, in the work of those close to the rational tendency, architecture becomes a substantial discipline, characterized by precise cultural and ideological boundaries, and which is also defined by rules that help generating new proposals. Again, while post-modernists see the idea of an autonomous architecture as a possibility for a stylistic pastiche, the rationalists are more interested in the grounding principles of architectural design, which they find in the typo-morphological analysis of residential blocks. The next chapter will then look at precise methodological approaches that will set the rules for an autonomous discourse grounded into the analytical conception of the city as background to architectural production.



Figure 12. Charles Moore, Piazza D'Italia, New Orleans. (Image by Author).

CHAPTER III

A COMMON TENDENCY

*After the end of the Second World War, architects who were obliged to respond to the new Italian reality were faced with a difficult dialectic between knowledge and action – difficult because of the contradictory foundations underlying the tradition of the discipline, but also because of the many levels imposed on such knowledge. This was all the more true given that most competent members of the profession took it for granted that there could be no knowledge divorced from action: an encounter with active politics seemed imperative.*¹⁴³

Manfredo Tafuri

The State of Italian Architecture after the Second World War

Regardless of ideological and political implications, the description given by Manfredo Tafuri in the opening chapter of *History of Italian Architecture, 1945-1985* was utterly accurate. Italian cities and the discipline of architecture came out in very bad shape after the Second World War. Historical neighborhoods had been destroyed by the retreating Germans while other civic landmarks had been lost forever under the continuous bombing of the allies in an attempt to free the Italian peninsula. The architecture profession was not doing any better either.¹⁴⁴ The debate following these significant events began shortly after the war was over, although some of the most influential thinkers of those years had fallen victim of the Nazis. Giuseppe Pagano, editor in chief of *Casabella*, arguably one of the most influential architecture magazines

¹⁴³ Manfredo Tafuri, *History of Italian Architecture 1944-1985*, (Cambridge MA: MIT Press, 1990), 3.

¹⁴⁴ Cesare de Seta, *L'Architettura del Novecento*, (Torino: UTET, 1981), 93.

in Italy, had died in a concentration camp along with Raffaello Giolli, Gian Luigi Banfi of B.B.P.R., Filippo Beltrami, and Giorgio Labó.¹⁴⁵

These unfortunate deaths contributed to the political impoverishment in architectural discourse. Thus, Italian architecture ended up falling victim, once again, of those academics that had ruled the university and the profession during the fascist years, and instead of breaking away from a classical and technocratic practice, Italian planning and architecture had become once again a rhetorical discipline in the hand of the bourgeoisie. Therefore, reconstruction turned into a political agenda that ended up legitimizing the rightist catholic middle class, more interested in producing quantity architecture rather than quality architecture.¹⁴⁶

Issues of public housing became instrumental while new urban plans had been produced to revitalize cities such as Milan and Rome. The major concern was decentralizing industrial areas and reinvigoration of historical centers while designing new residential areas fully accessible and fully integrated with the entire urban network. New transportation plans had been developed in order to assure connectivity between the inner core and the outskirts. However, this strategy, mostly based on rearranging functions within partially destroyed cities, did not result in a dynamic model, but it created a fragmentary condition that, up to the present, remains a major urban problem.¹⁴⁷ Giulia Veronesi, an influential Italian architect and thinker, began a strong campaign against Le Corbusier and the functionalist city while supporting an organic

¹⁴⁵ Ibid., 95.

¹⁴⁶ Manfredo Tafuri, *History of Italian Architecture 1944-1985*, (Cambridge MA: MIT Press, 1990), 4-5.

¹⁴⁷ Leonardo Benevolo, *L'Architettura dell'Italia Contemporanea*, (Bari: Laterza, 1998).

view close to the work and doctrine of Frank Lloyd Wright. It is in 1945 that Bruno Zevi, a famous historian that studied at Harvard, proposes and forms the Association for Organic Architecture (APAO) as a response to a functionalist approach. Planners such as Ludovico Quaroni, Mario Ridolfi and Luigi Piccinato joined Zevi's campaign for an organic driven plan that would resemble what was being produced in England and Scandinavia. The Association for Organic Architecture was based around three main principles: the refusal of classical styles, the understanding that functionalism should find a more organic way of expression, and the search for a democratic form of planning of the territory based on freedom and collective interests.¹⁴⁸

Ernesto Rogers, who in the meantime had replaced Giuseppe Pagano as editor chief of *Casabella*,¹⁴⁹ had also tried constantly through a series of sharp and vivid editorials to reopen the debate on reconstruction, suggesting a break away from the so called functionalist and technocratic practice and planning the cities. While Rogers condemned the extreme professionalism of Italian architecture,¹⁵⁰ he proposed an alternative rationalist tendency, which he had found in the residential schemes of the German *Siedlungen* primarily because those examples offered a new view of society, a socialist one, based on a revised model of communal property as well as a more urban and architectural practice.

¹⁴⁸ Cesare de Seta, *L'Architettura del Novecento*, (Torino: UTET, 1981), 100.

¹⁴⁹ Ernesto Rogers will be the director of *Casabella* from 1954 to 1964. Under his direction, the magazine was renamed *Casabella Continuità* to emphasize that continuity with the magazine directed by Giuseppe Pagano and Edoardo Persico during the fascist years. According to Rogers, continuity had to be intended as a historical awareness and search for a tendency that overcomes formalist approaches.

¹⁵⁰ See Ernesto Rogers, *Ridimensionamento dell'Architetto*, in *Casabella Continuità*, n.263, (May 1962), 2.

In effect, the Italian condition was characterized by a strong cultural unevenness that reflected the inability to successfully reconstruct a landscape still demarcated by post-war ruins. Political quarrels had been the leitmotif of a decade in which the rhetorical debate between the Rome based APAO and the Milanese faction had produced little to nothing. In fact, it is at the beginning of the 1950s with the establishment of the INA Casa plan that new subdivisions are finally built using public funds. Yet, according to Pier Luigi Cervellati, 75% of the architecture built in Italy was mediocre examples of buildings designed for private owners by *palazzinari*, which literally means building speculators.¹⁵¹ Hence, cities were undergoing a process of transformation that involved multiple speculative practices, a predicament that involved the total misinterpretation of specific historical urban layers pertinent to historical centers. Aldo Rossi had underlined this major problematic in an article that appeared on Casabella in 1962,¹⁵² in which he asked for a better understanding of modern historiography and those fortunate political experiences that produced positive examples of functioning urbanism such as in Frankfurt, Zurich and Hamburg. It is clear that a political agenda, a leftist one, and which Rossi defines free and modern, was now necessary to accommodate new urban realities that needed to be addressed by a more appropriate architectural approach, which would provide a certain continuity with the past. In 1966, with the publication of *L'Architettura della Città* (Figure 13), Aldo Rossi launched a redefinition of

¹⁵¹ Manfredo Tafuri, *History of Italian Architecture 1944-1985*, (Cambridge MA: MIT Press, 1990),

¹⁵² Aldo Rossi, "Nuovi Problemi," in *Casabella Continuità*, no.264, (June 1962), 3-5.



Figure 13. Aldo Rossi, *L'Architettura Della Citta*. This is the first edition of the book, which will be published and translated in German, Spanish, English and Portuguese.

architecture grounded in an understanding of the forms that make the modern European city. Rossi asserted the project of working on a technical survey of the city as an artifact, setting up architecture itself as the measure of architecture and explicating its genesis through its own principles. Architecture was to be, in Carlo Aymonino and Massimo Scolari's words, a *fenomeno autonomo* that required a disciplinary refunding;¹⁵³ a tendency that rejected interdisciplinary remedies, and that did not pursue and was not immersed in the political, economic, social and technological events. In so doing, architecture might reveal rather than suppress its own creativity, making possible focused intervention. Consequently, it is among the poorness and unevenness of the work produced in Italy that the methodological work of *Tendenza* truly stands up offering an interesting case of design practice based on a clear and analytical understanding of the post war Italian cities and the implementation of a comprehensive plan based essentially on an inclusive urban approach.

The Origins of *Tendenza*

*“Anche il quadro di tendenza qui tracciato è giusto proprio nei limiti da noi posti alla costruzione della ‘tendenza’ oggi essa non può nascere da slogan o manifesti ma dalla realtà di quei lavori – siano studi o progetti - che si muovano in una direzione precisa, razionale, ostinata, verso un nuovo significato dell’architettura.”*¹⁵⁴

¹⁵³ See K. Michael Hays, *Architecture Theory Since 1968*, (Cambridge: MIT Press, 2000), 124. This excerpt was also published in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale*, (Milano: Franco Angeli, 1973), 153-188. *Fenomeno Autonomo* literally means autonomous phenomena.

¹⁵⁴ This methodological framework here analyzed is appropriate within the limits of a tendency which can't be born from slogans or manifestos, but from actual works – such as academic or professional – that move toward a precise, rational, stubborn direction, or toward a new meaning in architecture; (my translation), Giovanna Gavazzeni, Massimo Scolari, “Note metodologiche per una ricerca urbana,” in *Lotus*, vol.7, (1970), 118.

Before contextualizing and identifying the historical origins of *Tendenza*, I believe that it is opportune to specify the meaning of this intellectual impulse in order to properly and thoroughly understand its main conceptual propositions. *Tendenza*, originally formulated as a methodological response to the reductive aesthetic of the International Style, is usually associated to a Milanese group close to Aldo Rossi and a Venetian group close to Carlo Aymonino. However, it is important to note that other small circles of architects, which are hardly ever mentioned, were associated to this new rational tendency, for instance the Neapolitan group lead by Agostino Renna, Uberto Siola and Salvatore Bisogni and the Trieste group represented by Luciano Semerari, which were both showcased at the XV Triennale of 1973 under the section “*Progetti su temi diversi elaborati da architetti e gruppi di lavoro.*”¹⁵⁵

While looking at its linguistic roots, the Italian word *Tendenza* means “an attitudinal predisposition to act and behave in a certain ideological way;”¹⁵⁶ thus, the term itself implies a very well defined programmatic orientation driven by a common idea or methodological practice. This definition certainly provides the basic underlying principles of this critical discourse, which is undoubtedly characterized by a universal impulse shared by many subjects. However, it is also necessary to point out that the Italian *Tendenza* is not entirely a homogeneous movement or group that ended up producing a similar architectural style, which is essentially what the term Neo-Rationalism might imply; on the contrary, *Tendenza* listed a very heterogeneous number

¹⁵⁵ Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 227-253. Also see XV Triennale di Milano, *Controspazio* 5, no. 6 (December 1973), and Quindicesima Triennale di Milano, *Catalogo Della Mostra*, (Milano: Grafiche A. Nava, 1973), 40.

¹⁵⁶ *Dictionary of Italian language*, Garzanti ed., s.v. “Tendenza.”

of practitioners and academics that indeed shared a similar interest toward an understanding of architecture and its urban methodological investigation. While their research agenda might have been similar, their design production was far from being analogous and comparable. Interestingly enough, the term *Tendenza* was rarely used by this group of architects as it implied, in a sort of reductive way, a common formal production that was not really present.¹⁵⁷ *Tendenza*, on the contrary, was always understood as a rather indicative of a certain inclination (*tendenza*) that elucidated a rational architectural practice based on the understanding of dominant urban events (*fatti urbani*) and the process of building/tectonic logic.

An important component toward an understanding of the origins and developments of *Tendenza* has to be found in the charismatic figure of Ernesto Nathan Rogers.¹⁵⁸ Fundamentally, Rogers was the individual accountable for the beginning of this extraordinary discourse in Italian architecture, although both Giuseppe Samonà and Ludovico Quaroni will be, directly and indirectly, involved in developing this rational framework based on a close association between architecture and the city as its ideological and formal background. Consequently, the rest of this chapter will be dedicated to a better understanding of that intellectual and professional production that

¹⁵⁷Massimo Scolari will use the term *Tendenza* in 1973 in one of the essays published in *Architettura Razionale*. His seminal essay was published in the original catalog of the XV Triennale di Milano Sezione Internazionale di Architettura with the title *Architettura Razionale*, which was then edited by Aldo Rossi and Ezio Bonfanti and published by Franco Angeli Editore in 1973. The English version was published in K. Michael Hays's *Architecture Theory since 1968*, edited by MIT Press in 2000.

¹⁵⁸Ernesto Nathan Rogers (March 16, 1909 - November 7, 1969) was an Italian architect, writer and educator. Born in Trieste, Italy he graduated from the Politecnico di Milano, Italy in 1932. He was the cousin of the renowned English architect Richard Rogers. Rogers, together with Gian Luigi Banfi, Ludovico Belgiojoso and Enrico Peressutti, in 1932 formed an architectural partnership in Milan, Italy named BBPR (from the names of the architects).

will eventually link Rogers, Samonà, and Quaroni to the origins of *Tendenza*, a discourse that will be significant toward the organization of the XV Triennale of 1973.

*Coerenza, tendenza, stile non sono sinonimi, ma tre momenti del processo storico nel quale si determina il fenomeno artistico.*¹⁵⁹

In a brilliant and brief editorial written for *Domus* back in 1946, Ernesto Nathan Rogers asked for a more coherent line of work that would produce a new tendency in order to reach a new style. The words coherence, tendency, and style were clearly and cleverly used to dictate a new procedural methodology, the only one necessary to comprehend the importance of the historical process in order to produce an artistic product consistent to the demands of the time, post-war Italy. In Rogers' words coherence had to be understood as the quality necessary to define the domain of a moral world, which was linked to a harmonious one; the two would then work strictly together to define a precise methodological approach. Tendency was then the ideological expression of this dualistic relationship between morals and harmony, while style was the formal result of this process. Thus, architecture should be produced by an ideological expression characterized by moralistic and harmonious peculiarities, which, when bounded together, create what Rogers calls a "legitimate style," or the manifestation of an idea based on clear principles.¹⁶⁰

Yet, the concept of legitimizing of a style is quite complicated as it involves the presence of a common ideology, which back in the Italy of 1946 was never really

¹⁵⁹ Coherence, tendency, and style are not synonymous, but they are three moments of an historical process, which defines the artistic phenomena; (my translation), Ernesto Rogers, "Elogio della Tendenza," in *Domus*, no.216, (December, 1946), 2.

¹⁶⁰ Ernesto Rogers, *Gli Elementi del Fenomeno Architettonico*, (Napoli: Guida, 1990), 56.

specified. In fact, the fascist years had been characterized by an ambiguous architectural production suspended between the rational practice of the Milanese school, Gruppo 7 among all, and the classical and monumental explorations of the Roman school lead by Marcello Piacentini. At the end of the war, as previously pointed out by Manfredo Tafuri, Italian architecture did not partake a clear direction or tendency, essentially falling victim of conservative and technocratic academism.

However, according to Ernesto Rogers, the ideological expression of morals and harmony, combined with the emergence of a tendency and a consequent style had to strongly state and dictate a new responsibility toward the understanding of new targets and, most importantly, new ambitions for a generation of young architects that was trying to break away from the illusory promises of a discipline still in clear crisis. In his editorial, Rogers acknowledged that the production of a new tendency based on coherence and style could indeed produce immature and mediocre work, but the intents of such a process was mostly dictated by the necessity to create a common methodology that was coherent to its critical approach, thus breaking away from any form of extreme conservatism. In a nutshell, it was far more constructive for the young architects to produce ordinary work driven by a common and coherent tendency rather than producing some mature work motivated by an old and conservative attitude.

This form of antagonistic practice could easily be labeled avant-gardism as it fueled a process of aggressive reaction, critically speaking, to what had been generated

during the hegemony of the fascist regime.¹⁶¹ Rogers was indeed trying to promote a constructive response to a field dominated by political arrivism, academic pedantism, and technocratic impulse, a field in which there was no architecture but only buildings. But it was not just about the proliferation of an ideological revolution; it had to be about the production of a style that could be understood and criticized based on its artifacts, architectural and non-architectural.

Rogers' strong positioning was mostly based on the understanding of what architecture should realistically provide. While a student at the Politecnico of Milan, Ernesto Rogers initiated a close intellectual collaboration with Gian Luigi Banfi (1910-1945), Ludovico Barbiano di Belgiojoso (1909-2004), and Enrico Peressutti (1908-1945), which culminated into the establishment of Studio B.B.P.R.¹⁶² At that time, the Milanese school of architecture was directed by Gaetano Moretti, who had strictly implemented a very conservative didactic based on the application of Greco-Roman compositional principles. The group lead by Rogers was not quite inclined to accept such conservative principles, which were antithetical to the modernistic doctrine implemented by Terragni, Gropius, Wright, Le Corbusier, and Mies van der Rohe.¹⁶³ Rogers said:

*Noi incominciammo a fare le bizzes subito; a non voler sottometterci a questa disciplina che non corrispondeva alla nostra interiore. Moretti non era il tipo da lasciarsi intimidire da quattro ragazzini irrequieti; aveva le sue opinioni, diverse dalle nostre, la sua esperienza, che rendevano più pertinace il senso della sua responsabilità.*¹⁶⁴

¹⁶¹ The antagonistic essence of avant-gardes are addressed in Renato Poggioli, *The Theory of Avant-Garde*, (London: The Belknap Press, 1968), 32.

¹⁶² B.B.P.R. stands for Banfi, Belgiojoso, Peressutti, and Rogers.

¹⁶³ Ernesto Rogers, *Esperienza dell'Architettura*, (Milano: Skira, 1997), 12.

¹⁶⁴ We immediately began to make the tantrums, not wanting to submit to this discipline that did not correspond to our inner self. Moretti was not the type to be intimidated by four restless

It is important, once again, to denote the high form of conservatism that was symptomatic of a secular pedagogy still anchored to a classical didactic, which was obstinately rejected by Rogers, Banfi, Belgiojoso, and Peressutti. Once again, this intransigence, also highly criticized by other students and faculty at the Milan Politecnico, was warranted by the proposition that a coherent style had to be born from a pertinent understanding of morals and ethical issues, a point that Rogers will make very clear in his famous editorial *Elogio della tendenza* written for *Domus* in 1946.¹⁶⁵ This intention was necessary as it tried to redefine a discipline whose disillusionment with fascism had led to an extreme form of conservatism based on patronage and technocratic pragmatism. Thus, Rogers and the rest of B.B.P.R. continued insistently toward a better understanding of modern architecture and its historical and political implications, which became the foundations for a new coherent tendency based on the concept of cultural continuity as a way to develop modernity. Thus, there can't be anything new without a clear and methodological understanding of the old, an understanding that implies a reconsideration of the role of history in architecture.

Dopo aver detto questo, mi pare sorga spontanea la domanda: "Perché noi architetti studiamo la storia? Perché noi architetti moderni, che abbiamo fatto questa rottura, che non crediamo negli stili, e che li abbiamo superati concettualmente nel modo di vedere e di concepire il nostro dovere creativo, perché noi vogliamo sapere le cose che sono state fatte? Questo interrogativo è rivolto ovviamente, non solo allo studio del Palladio o di Ictino, ma anche allo studio di qualunque fatto che sia già stato, anche solo l'altro ieri: per esempio Le Corbusier, o di Van de Velde, che ho citato prima. Se noi ci vietiamo, per la concezione che

children, had his views differ from ours, his experience, which made it more tenacious sense of his responsibility; (my translation), Ernesto Rogers, *Esperienza dell'Architettura*, (Milano: Skira, 1997), 12.

¹⁶⁵ Ernesto Rogers, "Elogio della Tendenza," in *Domus*, no.216, (December, 1946), 2

*abbiamo dell'architettura, di copiare qualsiasi elemento già costituito, di fare qualunque imitazione di carattere formale verso le opere del passato, perché studiamo il passato prossimo, oltre che quello lontano?*¹⁶⁶

Thus, the study of the history of architecture is not about imitating or comparing a certain style or work to the contemporary; on the contrary, it is about grasping ideas and concepts that generated a precise formal agenda, which consequently will give more significance to the contemporary production of architecture. It is unquestionable that to move forward one needs to be very well aware of the dichotomies of the past, which includes successful and unsuccessful buildings. It is also important to analyze the past in a very comprehensive way, a method that involves the study of all monuments and buildings that have tried to achieve the synthesis of form, utility, and beauty. Thus the history of our discipline should be the history of all buildings, without any sort of tendentious classification; it is then the architect who ought to make a selection of those that more successfully respond to his own understanding of the discipline. Moreover, the obligation to look at history as a way to recognize various interactions, connections, or traditions becomes crucial because history is indeed indispensable to recognize models and references capable to clarify and address current issues.

¹⁶⁶ After having said this, I think it begs the question: "As architects, why do we study history? Why do we, as modern architects, who made this break, who do not believe in styles, and who have conceptually gone beyond them as far as viewing and conceiving our creative task, why should we want to know about what has already been done? This question is addressed of course, not only to the study of Palladio or Ictinus, but also to the study of any fact or anyone that has already been, even if it happened just the other day: for example, Le Corbusier, and Van de Velde, who I mentioned earlier. If we prohibit, due to the conception we have of architecture, the copying of any existing element, the imitation of a formal nature of works from the past, why should we study the recent past, as well as the distant?; (my translation), Ernesto Rogers, *Il Senso della Storia*, (Milano: Edizioni Unicopli, 1999), 64.

However, the methodological framework developed by Ernesto Rogers did not just imply historical continuity within the discipline of architecture, which corresponded to a better understating of the recent past (Mies, Le Corbusier, Wright, and Gropius) as well as the distant (Palladio and Ictinus); his framework also involved a deep understanding of the inner structure of architectural composition. For Rogers, composition meant arranging various elements together in order to produce one.¹⁶⁷ Yet, the major problem of this definition, and Rogers was very well aware of it, was the explanation and connection between those elements, which essentially are responsible for creating a logical and rational end product. What is an element then? According to Rogers the word element has two different meanings: a material proposition that participate to the formation of an idea, and a theoretical principle that governs and determines the end product.¹⁶⁸ When those two meaning overlap, we obtain normative design principles that show no connections to aesthetic propositions. But how do we structure those connections so that we obtain a coherent and also pleasing result? For Rogers, the structure of architectural thought is implied in the awareness of experiences that define the designer.¹⁶⁹

Within this framework, historical traditions are also intended as a multiplicity of experiences, which address emergent modes of composition through connection of elements. This process produced less of a formal understanding and more of a methodological framework based on the structural logic of the process: new problems

¹⁶⁷ Ernesto Rogers, *Esperienza dell'Architettura*, (Milano: Skira, 1997), 171.

¹⁶⁸ Ernesto Rogers, *Gli Elementi del Fenomeno Architettonico*, (Milano: Christian Marinotti Edizioni, 2006), 25.

¹⁶⁹ *Ibid*, 22.

can be addressed by old methodological framework that can eventually produce new formal results because certain connections might present different ideological patterns. This procedural outline seemed to be quite closed to formal explorations that might have been out of context, but the main problem of architectural composition was not about creating a new aesthetic that would break away from the monotony of the present or the conservative manipulations of the past. Essentially, Rogers' goal was to implement a design strategy that involved the appreciation of the method above all, a peculiarity that would result in multiple results, sometime very individualistic and divergent. Fundamentally, Rogers was interested in finding a comprehensive theory that would rationally govern the discipline of architecture without compromising its aesthetical purposes.

*Il mio scopo non è di introdurre uno stile moderno da servire, per dire così, confezionato, ma introdurre piuttosto un impostazione che consenta di affrontare ogni problema in funzione dei suoi valori specifici.*¹⁷⁰

Interestingly enough, Rogers' didactic and methodology became well absorbed by Aldo Rossi and Giorgio Grassi, both of whom were students at the Politecnico in Milan around the 50s and 60s,¹⁷¹ and who will be fundamental in the late developments of the *Tendenza* and the ideological organization of the XV Milan Triennale of 1973.

¹⁷⁰ My aim is not to introduce a modern style to be served, so to speak, pre-packaged, but rather to introduce an approach, which addresses all issues in relation to its specific values; (my translation), Ibid, 39.

¹⁷¹ Rossi started studying architecture at the Politecnico di Milano in 1949 where he graduated in 1959. Already in 1955 he started writing for the *Casabella Continuità* magazine edited by Ernesto Rogers, where he later became one of the editors (1959–1964). Giorgio Grassi graduated in 1960, and later began his collaboration with *Casabella Continuità* until 1964.

But the matrix of associations is not entirely limited to the chronological collaboration between Rogers, Rossi, and Grassi.

In fact, other important architects and academics such as Ludovico Quaroni and Giuseppe Samoná will intervene and be part of this new discourse in many different forms and ways, which sometime will create some confusion and perplexity as their impulse was never sequential nor originally planned and designated with the intention of creating what we call *Tendenza*. Again, the narrative that describes the evolution of this tendency was not implemented in some a sort of linear or nostalgic way; on the contrary, it tried to be more attentive to events and idiosyncrasies that explained the presence and development of a certain methodology. Most of these idiosyncrasies were quite complex and never chronological, and I truly believe that it was vital to my work recognizing that history is always tangled with layers of events that don't always overlap neatly, but that appear to show discontinuity, so that "*things are no longer perceived, described, expressed, characterized, classified, and known in the same way,*"¹⁷² but they need to be cross-examined in order to verify their consistency and relevance. This discontinuity and recollection of events and information allowed for a better understanding and identification of the ideological origins of *Tendenza*.¹⁷³

¹⁷² Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences*, (New York: Random House, 1994), 217.

¹⁷³ Thus, things might be a bit messy from a chronological point of view as the work of Rogers, Quaroni and Samoná did not always overlap clearly, but it appeared to be quite discontinuous as certain events and ideas tended to appeared and reappeared in a non linear fashion.

Ernesto Rogers and *Casabella Continuità*

*“Davvero Casabella sarebbe un titolo assai banale per riassumere il programma di una rivista.....se le radici della sua storia, non l’avessero nutrito d’una linfa così vitale da trasformarlo sostanzialmente: la tensione del contenuto ha caratterizzato il nome e qui vibrano, ormai, le forze di un simbolo: Casabella è la rivista che Giuseppe Pagano e Edoardo Persico condussero, oltre gli anni oscuri, verso la meta sempre proposta delle definizioni, delle scoperte, delle invenzioni, delle fantasie. Dai loro frutti abbiamo accolto le sementi.”*¹⁷⁴

Ernesto Nathan Rogers

La Casa bella, an Italian architectural and product design magazine, was published for the first time in January of 1928, and it was edited by Guido Marangoni, a prominent Milanese art critic. The first issues of *La Casa bella*, which literally means the beautiful home, were essentially dedicated to the arts and industry of interior furnishing¹⁷⁵ with little consideration toward the incessant polemic between the Milanese rationalist group and the Roman conservative group supported by Benito Mussolini.¹⁷⁶ The leadership of Marangoni as editorial chief was shortly live as he ended up being replaced by Arrigo Bonfiglio in 1930. In 1933, Giuseppe Pagano and Edoardo Persico, influential Italian architects notable for their particular cultural involvement

¹⁷⁴ Casabella is really a very banal way to summarize the program of such a magazine if the roots of its history had not been fed of such a vital sap that substantial transformed it: the voltage of the content featured here vibrate, the forces of a symbol: Casabella which Edoardo Persico Giuseppe Pagano led, over the dark years, always toward the goal of the proposed definitions, discoveries, inventions, fantasies. By their fruits, we have received seeds. Ernesto Rogers, “Continuità,” in *Casabella-Continuità*, no.199, (December, 1953), 2 (my translation).

¹⁷⁵ Cesare de Seta, *L’Architettura del Novecento*, (Torino: UTET, 1981), 220.

¹⁷⁶ Contribution from the Rationalists included articles and essays by Giuseppe Pagano and Edoardo Persico. See Cesare de Seta, “*Edoardo Persico e Giuseppe Pagano a Casabella*,” *Casabella* 440-441 (October-November 1978), 15.

with the Milanese rationalist group, took over the direction of *La Casa bella*, changing its title to *Casabella*.¹⁷⁷

Under both Persico, who mostly served as chief editor, and Pagano's direction, *Casabella* increasingly becomes a generator of polemics and criticism, mostly directed toward the conservative Roman school of Marcello Piacentini. Unlike Pagano who had shown a certain interest in the fascist agenda, Edoardo Persico was anti-fascist, a peculiarity that was not very well accepted by Benito Mussolini and the other members of the Fascist party. Persico was strongly influenced by the ideas and philosophical work of Benedetto Croce, an idealist Italian philosopher and critic who supported a more liberal form of governance based on an individual limitation of fixed legitimate powers. Most importantly, Croce's intellectual influence helped Persico understand the evolution, for most part negative, and the ambiguous nature of the Fascist party. Persico believed that a new architecture should be born from a society founded upon the values of democracy and social participation. When those values are totally denied by the severity and authoritarian agenda implemented by the fascist regime, then any attempt to define a new Italian architectural position is prone to fail because of its false and ambiguous ideological contamination and background.¹⁷⁸ Thus, Persico looked more into specific historical conditions and events that had created, under the same authoritarian premises, a new democratic society. He particularly looked into the French Revolution in an attempt to understand, in its conclusive moments, possibilities for a new society established on ideas of freedom, democracy and progress, constructing a

¹⁷⁷ Chiara Baglione, *Casabella 1928-2008*, (Milano: Electa, 2008).

¹⁷⁸ Cesare de Seta, *L'Architettura del Novecento*, (Torino: UTET, 1981), 68.

new ideological framework based on anti-fascist premises. Essentially, Persico defined a tendency, mostly methodological and also political in its anti-fascist implications, that was significant for the formation of young rationalist architects such as Giuseppe Terragni, Luigi Figini and Gino Pollini.

Again, the idea of a coherent tendency, a rational one, supported by an influential magazine such as *Casabella* becomes quite intriguing as it reinforces and supports even more this idea of ideological continuity with the work of some of the architects of the Enlightenment such as Boullée, Ledoux, Durand, but also with some of the more contemporary architects such as Berlage, Loss, Tessenow. The rationalist thread took a big hit in 1936 when Edoardo Persico passed away at the young age of 36. Yet, a clear tendency was born from the early years of *Casabella*, an attitude frequently critical of a profession that had become hostage to a specialized and academic conservatism promulgated mostly by Gustavo Giovannoni and Marcello Piacentini.¹⁷⁹ Architects, critics and other intellectuals such as Giulio Carlo Argan, Giulia Veronesi, Franco Albini, Luigi Cosenza, Ignazio Gardella, and Ernesto Nathan Rogers had all been involved with the *Casabella* of Pagano and Persico; interestingly enough, those prominent figures will later become instrumental masters and ideological references for the Italian architectural generation that followed the Second World War and that was emphasized by the work of Aldo Rossi, Giorgio Grassi, Carlo Aymonino, and Vittorio Gregotti.

¹⁷⁹ Ibid, 69.

Back in 1938, *Casabella* had turned into *Casabella Costruzioni*, and then, in 1940, into *Costruzioni Casabella*.¹⁸⁰ In 1943, the publication was halted by the Minister of Popular Culture due to its increasingly anti Mussolini agenda.¹⁸¹ In 1945, Gianni Mazzocchi finally reopens the magazine now called *Costruzioni* whose direction had been handed to Franco Albini and Giancarlo Piretti, who had participated toward the production of three monographic issues dedicated to Giuseppe Pagano, and who had also tried to give a little more space the problems of reconstruction in post war Italy.¹⁸² The publication was stopped again in 1947 while it was finally reopened in December of 1953 under the direction of Ernesto Nathan Rogers, who had previously directed *Domus* from 1946 to 1947. The newly revived magazine was published on a bi-monthly base with a brand new title that was essentially an homage to the idea of continuity intended as a newfound historical architectural awareness: *Casabella Continuità*.

It has to be said though, that in 1951, Rogers, with the help of Gio Ponti, had tried to get in touch with Gianni Mazzocchi and Adriano Olivetti, a prominent Italian entrepreneur, in an attempt to try to restore *Casabella*;¹⁸³ unfortunately, this effort did not go very well because of financial problems that had been affecting the post war

¹⁸⁰ Chiara Baglione, *Casabella 1928-2008*, (Milano: Electa, 2008).

¹⁸¹ Ibid, 70. Pagano's fascist ideology was increasingly different than the one supported by Mussolini. He was eventually arrested and sent to concentration camp in Germany where he died in 1945.

¹⁸² Issues n. 195/198 were entirely dedicated to the work of Giuseppe Pagano.

¹⁸³ Ernesto Rogers, *Esperienza dell'Architettura*, (Milano: Skira, 1997), 316-17, and Chiara Baglione, *Casabella 1928-2008*, (Electa: Milan, 2008), 213. Julia Banfi, Gian Luigi Banfi's daughter, stated that Gio Ponti had offered about five hundred thousand Italian Lire to revive *Casabella* and restart the printing of it.

Italian economy.¹⁸⁴ Yet, the conditions became more favorable in 1953, when Italy underwent an economical boom essentially characterized by an increasing industrial output, which profoundly contributed to an escalating GNP and consequent employment rate.¹⁸⁵ In his first editorial in December of 1953, Rogers explains why he chose to retain the original title *Casabella*.

*“Davvero Casabella sarebbe un titolo assai banale per riassumere il programma di una rivista.....se le radici della sua storia, non l'avessero nutrito d'una linfa così vitale da trasformarlo sostanzialmente: la tensione del contenuto ha caratterizzato il nome e qui vibrano, ormai, le forze di un simbolo: Casabella è la rivista che Giuseppe Pagano e Edoardo Persico condussero, oltre gli anni oscuri, verso la meta sempre proposta delle definizioni, delle scoperte, delle invenzioni, delle fantasie. Dai loro frutti abbiamo accolto le sementi.”*¹⁸⁶

It was also for the same reason that he chose to add the tile *Continuità* to it; Rogers wanted to credit the magazine's success and value to the work of Pagano and Persico who had had the audacity to take over *Casabella* during the dark years of the fascist regime, without compromising that critical and methodological agenda characterized by a rationalist proposition they wanted to exuberantly communicate to the younger generations of Italian architects. He also added:

Continuità....significa coscienza storica; cioè la vera essenza della tradizione nella precisa accettazione d'una tendenza che, per Pagano e

¹⁸⁴ Chiara Baglione, *Casabella 1928-2008*, (Milano: Electa, 2008), 213.

¹⁸⁵ Cesare de Seta, *L'Architettura del Novecento*, (Torino: UTET, 1981), 140, and Paul Ginsborg, *A History of Contemporary Italy: Society and Politics 1943-1988*, (New York: Palgrave Macmillan, 2003), 186.

¹⁸⁶ Casabella is really a very banal way to summarize the program of such a magazine if the roots of its history had not been fed of such a vital sap that substantial transformed it: the voltage of the content featured here vibrate, the forces of a symbol: Casabella which Edoardo Persico Giuseppe Pagano led, over the dark years, always toward the goal of the proposed definitions, discoveries, inventions, fantasies. By their fruits, we have received seeds; (my translation), Ernesto Rogers, “Continuità,” in *Casabella-Continuità*, no.199, (December, 1953), 2.

*per Persico, come per noi, è nell'eterna varietà dello spirito avversa ad ogni formalismo passato e presente. Dinamico proseguimento e non passiva ricopiatura: non maniera, non dogma, ma libera ricerca spregiudicata con costanza di metodo.*¹⁸⁷

Again, clearly respect for his predecessors but also an awareness and understanding of the true essence of tradition, which is not recognized as a stylistic reshuffling of orders and architectural elements that recall a certain era, but it is instead seen as a tendency to manipulate methods of architectural research and design. It is not about looking for recipes or other formal propositions, but it is about understanding the historicity, context, and process of certain designs and events before we can extrapolate clues and strategies that can be re applied to similar conditions. It is once again about what Rogers calls “Dynamic continuity and a free search of those constantly unconventional methods.”¹⁸⁸

The search for architectural continuity was also shared by several young architects who collaborated with *Casabella Continuità* under Rogers' editorship. The new editorial board was formed by Marco Zanuso, Giancarlo De Carlo, Vittorio Gregotti, and Julia Banfi.¹⁸⁹ While Marco Zanuso was interested in issues of prefabrication and the technicality of the profession, Giancarlo De Carlo was more focused on the understanding of architecture as a social art, which cannot be separated from its social and moral background. This idealistic view was essentially implemented

¹⁸⁷ Continuity.... means historical consciousness, that is the true essence of tradition in the precise acceptance of a trend that, Pagano and Persico, as for us, is in the eternal variety of the spirit adverse to any formalism past and present. Dynamic continuity and not passive recopying: no manner, no dogma, but a free search of those constantly unconventional method; (my translation), in, Ernesto Rogers, “Continuità,” *Casabella Continuità* n.199 (December 1953), 2.

¹⁸⁸ Ibid, 2.

¹⁸⁹ Chiara Baglione, *Casabella 1928-2008*, (Milano: Electa, 2008), 213.

in order to overcome a sort of formalism that was increasingly taking over the production of modern Italian architecture. Vittorio Gregotti, the youngest as he had just graduated in 1952, was mostly in charge of graphics, a role he ended up sharing with Gae Aulenti until 1954, when he finally became one of the chief editors. It is interesting to note that Ernesto Rogers, in a very progressive fashion, had essentially created a work environment characterized by a continuous intellectual collaboration with some of his Politecnico's best students,¹⁹⁰ who were often invited to collaborate editorially and academically. Among this group of talented students, it is important to mention Aldo Rossi, Giorgio Grassi, Silvano Tintori, and Guido Canella, who will all be fundamental in shaping the ideological bases of *la Tendenza* and the XV Milan Triennale of 1973. Again, the major point of departure of this new attitude had to be seen in Rogers' understanding of tradition and continuity, which, as explained in his first editorial back in December of 1953, was conceived as an historical awareness to understand and then overcome the past without complying to its formal architectural expressions. Although all the members of the editorial essentially accepted this line of thought, it was Giancarlo De Carlo who decided to take a different stand and criticize the work of the so-called *giovani delle colonne*, a group of students at the Politecnico of Milan formed by Silvano Tintori, Guido Canella, Aldo Rossi, Maurizio Calzavara, and Laura Lazzarri who were advocating for a didactic less aesthetic and more open to real issues and problem. De Carlo did not quite agree with this intellectual stance, and thus, in the February-March issues of 1955, he strongly criticizes these young students by underlying their naïve

¹⁹⁰ In 1952, Ernesto Rogers taught as a lecturer the course of *Caratteri Stilistici di Architettura*, which was also taught in collaboration with Vittorio Gregotti in 1953.

appreciation for a celebrative neoclassical tendency that was ambiguous at best and did not comply with this understanding of architecture as a social art that deals with real and tangible problems.¹⁹¹ Yet, Rogers distanced himself from this position reassessing once again his interest in the methodological research of the young Milanese group, which was basically trying to generate a new methodological framework based on this idea of a coherent and analytical continuity within a specific urban environment, characterized by an increasing necessity to provide new housing while dealing with the problems of post war reconstruction.¹⁹²

From 1955, Rogers increases his collaboration with Giuseppe Samonà, who in *Casabella Continuità* n. 205 presents the work of eleven young architects, most notably Carlo Aymonino and Vittorio Gregotti. In 1957, De Carlo leaves *Casabella Continuità* based on what he had called “cultural divergences.”¹⁹³ It is clear that he did not approve of the methodological research and work of the *giovani delle colonne*, but most importantly, he did not support the increasing editorial collaboration with Aldo Rossi and Guido Canella, both of whom, according to De Carlo, symbolized a highly negative return to a continuity based on formal historicism.¹⁹⁴

Casabella Continuità n. 215, perhaps one of the most controversial issues published under Rogers, revisits the work of Ludovico Quaroni at the Tiburtino in Rome in the article titled “*Il Paese dei Barocchi*,” the same issue presents also other essays

¹⁹¹ Giancarlo De Carlo, “Problemi concreti per i giovani delle colonne,” *Casabella Continuità* n.204 (February-March 1955), 83.

¹⁹² Chiara Baglione, *Casabella 1928-2008*, (Milano: Electa, 2008), 217.

¹⁹³ Giancarlo De Carlo, “Una precisazione,” *Casabella Continuità* n.214 (February-March 1957).

¹⁹⁴ Ibid.

with urban connotations by Carlo Aymonino and Federico Gorio, while Aldo Rossi proposes an article based on the analysis of the work of Stephan Tschudi Maden, a Norwegian art historian interested in the historical connotations of the Art Nouveau.¹⁹⁵ Considering the highly historical and perhaps revivalist connotations of this issue, it is clear that *Casabella* is going through an increasing ideological ambiguity, a position that will eventually lead to the Neoliberty polemic triggered by Reyner Banham who, in a famous article published on *Architectural Review*, will accuse Rogers to retreat from the modern movement, and to betray the major conceptual ideas of modernity by proposing what he calls an “infantile regression.”¹⁹⁶ It is also clear that the completion and publication of the Torre Velasca¹⁹⁷ (Figure 14) in Milan, and the Bottega d’Erasmus in Turin, two very controversial buildings because of their stylistic expression, had facilitated the Neoliberty polemic that forced Rogers to clarify his notion of tradition, continuity, and historical progression in an article published later on in 1959.¹⁹⁸

¹⁹⁵ Il Paese dei Barocchi literally means the “Land of Baroque,” an ironic reference to the Quartiere Tiburtino designed by Quaroni in collaboration with Mario Ridolfi. This housing unit, part of the city of Rome, was designed according to a smaller country-like scale with little aesthetic relevance to its context. See Ludovico Quaroni, “Il Paese dei Barocchi,” in *Casabella Continuità* 215, (May-April 1957).

¹⁹⁶ Reyner Banham, “Neoliberty: the Italian Retreat from Modern Architecture,” *The Architectural Review*, (April 1959), 231-235. This article generated a sharp response from Rogers, which was published in *Casabella Continuità* 228. See Ernesto Rogers, “L’evoluzione dell’architettura: Risposta al custode dei frigidaires,” *Casabella Continuità* 228, (June 1959), 2-4. Also published in Ernesto Rogers, *Editoriali di Architettura*, (Torino: Giulio Einaudi Editore, 1968), 126-137.

¹⁹⁷ La Torre Velasca is a tower-like building located in the city centre of Milan, Italy, near the Duomo in Milan that was designed by Studio B.B.P.R. Its formal and stylistic quality recalls the architectural expression of the Milan cathedral and the Castello Sforzesco. The tower was strongly criticized for its stylistic historicism.

¹⁹⁸ Ernesto Rogers, “Tre problemi di ambientamento. Chiarimento,” in *Casabella Continuità* n.232, (October 1959), 5-17.



Figure 14. B.B.P.R., Torre Velasca, Milano. Image from: Cesare de Seta, *L'Architettura del Novecento*, (Torino: UTET, 1981),1.

During those years though, Rossi's contribution to *Casabella Continuità* becomes more active and more attentive to historical modernist tendencies as well as urban aspects of the growing Italian city.¹⁹⁹ Rossi, Tintori, Aymonino, Grassi, as well as a young Manfredo Tafuri are more often engaged in articles that deal with local and international experiences in terms of planning of the city by proposing case studies on Rome, Milan, Tokyo, Helsinki, Berlin, Amsterdam, and Vienna.²⁰⁰ In 1963, Ezio Bonfanti, another *enfant prodige* of Ernesto Rogers who had also just graduated from the Politecnico in Milan, joins the editorial of *Casabella Continuità* bringing in a more mature understanding of the philosophical and aesthetical prerogatives of Marxism extrapolated from the work and writing of Lukács, Hegel, and Walter Benjamin.²⁰¹ Essentially at this point, Rogers had assembled a great intellectual environment for new ideas mostly composed by talented young architects who were primarily looking for

¹⁹⁹ See Aldo Rossi, "Il passato e presente nella nuova Architettura," in *Casabella Continuità* n.219, (May 1958), 16, also see Aldo Rossi, "Adolf Loos, 1870-1933," *Casabella Continuità* n.233, (November 1959), 5-12; Aldo Rossi, "Il problema della periferia nella città moderna," *Casabella Continuità* n.241, (July, 1960), 39-55; Aldo Rossi, Silvano Tintori, "Aspetti urbanistici del problema delle zone arretrate in Italia e in Europa," in AA. VV., *Problemi sullo sviluppo delle aree arretrate*, (Il Mulino: Bologna, 1960), 243-293; Aldo Rossi, "La città e la periferia," in *Casabella Continuità*, n. 253, (July 1961), 23-26.

²⁰⁰ Manfredo Tafuri, born in 1965, attended the University of Rome when Giulio Carlo Argan was chair of art history. Although both Argan and Bruno Zevi had written extensively on architectural history, there were no architectural historians at the Roman school. Tafuri's major influence was his design instructor, Ludovico Quaroni. He received his degree in architecture in 1960 and was appointed professor at Palermo shortly after. He began his collaboration with Rogers and *Casabella Continuità* in 1962. See Andrew Leach, *Manfredo Tafuri: Choosing History*, (A&S Books: Gent, 2007), 19.

²⁰¹ Once again, the figure of Ezio Bonfanti is quite fundamental within the formation of *Tendenza* and the finalization and organization of the XV Milan Triennale of 1973. Rossi, Grassi, Monestiroli, and Aymonino often recognized his strong theoretical and philosophical approach to architecture and architectural criticism. His contribution to *Controspazio* with articles on Aldo Rossi and the autonomy of architecture are among the best propositions on the subject matter. Those essays were also published in: Ezio Bonfanti, *Scritti di Architettura*, (Milano: CLUP, 1981), 103-118; 281-296.

drastic changes and new methodological directions. The same year, Rogers dedicate an entire issue to young Italian Architects, most of which were very active in Milan and Venice. This group included Aldo Rossi, Luca Meda, Guido Canella, Gae Aulenti, Vittorio Gregotti, Costantino “Nino” Dardi, and Luciano Semerani among all (Figure 15).²⁰² In 1964, Rogers’ magazine dedicates an entire issue to the architecture of Berlin with a remarkable essay on the typological and morphological aspects of residential architecture in Berlin written by Aldo Rossi, who in the meantime had become very familiar with the German intellectual environment as he had also been invited in 1961 at the *Deutsche Bauakademie* in Berlin by Hans Schmidt to lecture about this new interest in the architecture of the city along with Carlo Aymonino, who had also presented a report on the new tendencies of Italian architecture.²⁰³

Just to give some more historical and contextual background, during the early 60s, the Italian economy had started showing optimistic signs of progress; that meant more opportunities for architects and planners who had not had too many occasions to work. The rapidly increasing industrial sector, a new necessity to redefine the use of land, and the importance of the housing market had all created a strong attention towards the problems of urban growth and planning of the territory.²⁰⁴

²⁰² See the entire issue of *Casabella Continuità*, n.276, (June 1963).

²⁰³ Aldo Rossi, “Aspetti della tipologia residenziale a Berlino,” *Casabella Continuità*, n.288, (June 1964). See also Elisabetta Vasumi Roveri, *Aldo Rossi e L’Architettura della Città: Genesi e Fortuna di un Testo*, (Torino: Allemandi, 2010), 39-40.

²⁰⁴ See Titia Rixt Hoekstra, *Building Versus Bildung*, (Groningen: University of Groningen Press, 2005), 121.

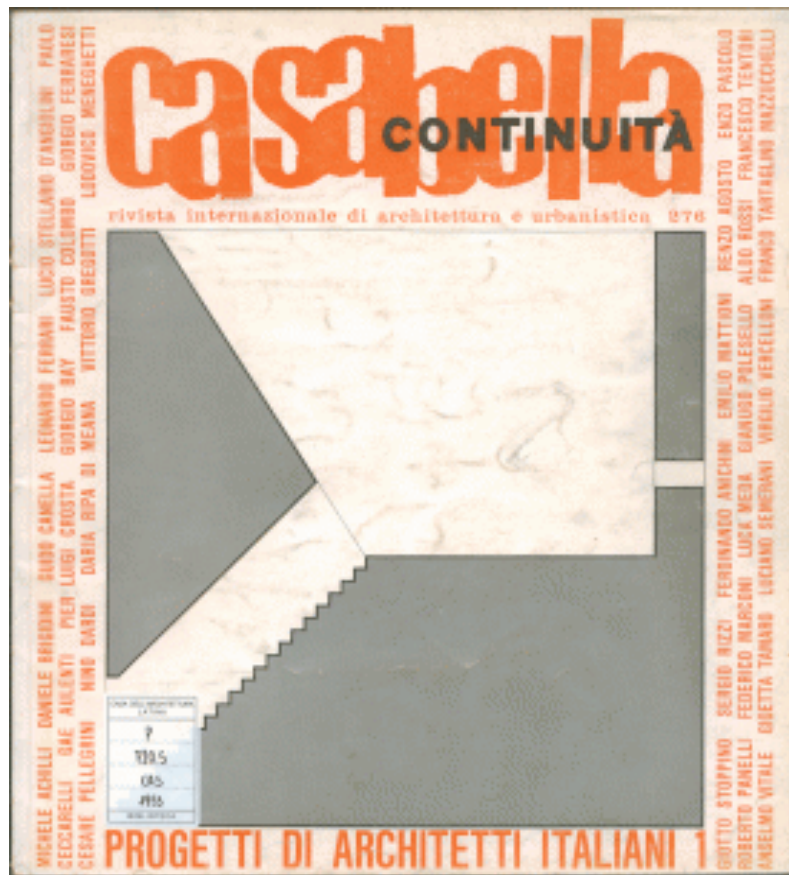


Figure 15. *Casabella Continuità* n. 276, Progetti di Architetti Italiani. (Designs of Italian architects) Published in June of 1963, (Image edited by Author).

Interestingly enough, this newfound interest in the discipline of urban planning and the architecture of the city will end up generating a series of seminal essays and books, starting from Carlo Aymonino's *Origini e Sviluppo della Città Moderna*²⁰⁵ published in 1965, followed by Aldo Rossi's *L'Architettura della Città*, published in 1966, which both addressed issues of residential typology and urban morphology with particular methodological emphasis on the notion of *fatti urbani* (urban events) as underlined by Marcel Poëte in his seminal work *An Introduction to Urbanism: The Historical City*.²⁰⁶ This new procedural tendency, motivated by a different understanding of the concept of continuity, not always formal but also analytical and most importantly typological, continued with the publication of Giorgio Grassi's *La Costruzione Logica dell'Architettura* back in 1967²⁰⁷, and Silvano Tintori's *L'Individualità Urbana: Ricerche per una Scienza del Territorio* also in 1967. Interestingly enough, the first three books by Aymonino, Rossi, and Grassi were all published by Marsilio Editori, an up and coming editorial group founded by Sabino Acquaviva, Paolo Ceccarelli, Giulio Felisari, Toni Negri, and Giorgio Tinazzi, whose architecture collection *Polis: Quaderni di Architettura* was initially directed by Aldo Rossi, a close friend of Paolo Ceccarelli.²⁰⁸

But before addressing the importance of those seminal works, which will be explicated in the next chapters, I think that it is opportune to remember that Rogers' tenure at *Casabella Continuità* ended abruptly in 1964. In fact, Gianni Mazzocchi,

²⁰⁵ Literally *Origins and Developments of the Modern City* (my translation).

²⁰⁶ Marcel Poëte, *Introduction à l'urbanisme. L'évolution des villes, la leçon de l'antiquité*, (Paris: Boivin & Cie, 1929).

²⁰⁷ Literally *Architecture's Building Logic* (my translation).

²⁰⁸ Elisabetta Vasumi Roveri, *Aldo Rossi e L'Architettura della Città: Genesi e Fortuna di un Testo*, (Torino: Allemandi, 2010), 38-39.

forced by Luigi Bellini a prominent member of the D.C., the democratic party, turned the magazine to Gian Antonio Bernasconi in order to break away from Rogers' increasing leftist and progressive agenda, which had created some issues with the Italian order of architects, guilty, according to Rogers, of transforming Italian architecture into a practice dictated by a notably technocratic and pragmatic agenda.²⁰⁹ In his last editorial, Rogers said:

*Essendo costretto a lasciare Casabella Continuità era necessario che io esprimessi il mio punto di vista su quello che la rivista era stata durante la mia direzione e quello che paventavo (non incosultatamente) rischiasse di diventare. Mi spiace di essere stato buon profeta, mentre sarei stato lieto di essere sconfitto alla prova dei fatti migliori.*²¹⁰

After the unfortunate resolution of Rogers' *Casabella*, Aldo Rossi, Giorgio Grassi, and Carlo Aymonino continued their academic and professional adherence to a tendency based on typological studies,²¹¹ while Gregotti, who had left in 1963 to dedicate his research to issues of experimentalism and communication in collaboration with Umberto Eco, turned to a more personal understanding of architecture's technological and formal expressions within the geographic territory, which will be then

²⁰⁹ Notable are the two editorials: Ernesto Rogers, "Architetti senza complesso d'Edipo," in *Casabella Continuità* n.289, (July, 1964), 2, and Ernesto Rogers, "I soliti Farisei," in *Casabella Continuità* n.292, (October, 1964), 1.

²¹⁰ Having being forced to leave *Casabella Continuità*, it was necessary for me to express my point of view on what the magazine was during my direction and what I dreaded (with great personal fear) it would become. I am sorry to have been a good prophet, but I would have been happier to lose this battle in the presence of better methodological propositions; (my translation), in Ernesto Rogers, "Discontinuità o continuità?," in *Casabella Continuità*, n.294-295, (December-January, 1964-1965).

²¹¹ Aldo Rossi and Giorgio Grassi will continue their collaboration with Rogers at the Politecnico of Milan while Carlo Aymonino will continue his work and research at the IUAV in Venice under the supervision of Giuseppe Samoná.

elucidated in *Il Territorio dell'Architettura*, written in 1965 but published in 1966.²¹² Yet, this doctoral work deals with a methodological framework that was articulated around different important moments and events in time. After having traced the origins of *Tendenza*, it is necessary to revisit the ideological and methodological work of both Giuseppe Samoná and Ludovico Quaroni in order to better understand their implications and involvement with the development of a tendency that will find its highest expression in the International section of the XV Milan Triennale of 1973.

Giuseppe Samoná and the IUAV of Venice

Giuseppe Samoná was born in Palermo in 1898, where he also graduated in Civil Engineering in 1922. He begins his academic and professional career in 1927 when, besides working independently and participating to various design competitions, he also teaches ornamental drawings and fundamental of architecture at the university of Messina, where he meets Enrico Calandra, an important Sicilian architect deeply interested in the relationship between architecture and historical inquiry.²¹³ In 1930, Samoná obtains tenure, and decides to move to Naples where he teaches a vast variety of courses until 1936.²¹⁴ The same year, he takes a teaching job at the IUAV in Venice where he becomes responsible for the didactic of the course architectural drawing and survey of monuments until 1943 when he is finally appointed as the director of the

²¹² Chiara Baglione, *Casabella 1928-2008*, (Milano: Electa, 2008), 223.

²¹³ Enrico Calandra will be one of the precursors of the course of *Caratteri Distributivi degli Edifici*, which he will teach in Rome with the assistance of Saverio Muratori.

²¹⁴ Samoná taught courses spanning from Descriptive Geometry, Architectural Composition, Architectural Drawing, and Elements of Architecture.

institute although he is temporarily forced to step down in 1944 because of his scarce ideological and political affinity with the fascist regime. Samoná regains his job in 1945, after the allied freed Italy from Mussolini's dictatorship, and starts developing a research agenda based on urban observations. Notably, the institute, under his guidance, performs studies of different urban districts in Venice such as the San Giuliano in Mestre in 1951, and the INA Casa di Sciacca e Palma di Montechiaro in 1952.²¹⁵ His growing interest in urban issues and the planning of the city, as well as collaboration with Giovanni Astengo and Luigi Piccinato, will produce a series of policies pertaining the discipline of urban planning, policies that will be implemented at a national scale in 1962.²¹⁶

Samoná's methodological agenda is quite apparent in his first major publication, *L'Urbanistica e L'Avvenire della Città negli Stati Europei*, published in 1959, which addresses a new understanding of the city based on internal architectural phenomena that can be finally analyzed and evaluated in order to produce a better plan while attacking the commonplaces of urban planning history. This new antagonistic proposition was justified by an increasing attitude toward the functionalist plan, in which the city was designed by identifying functional zones that often provided a formal and morphological disjunction that would eventually translate into a social and spatial rupture. In response to this attitude, Samoná tried to develop a new history and theory of urban planning based on a process of observation of the urban layers, typological, morphological and social, that characterize fragments and disjunctions. This process was finalized in an attempt to identify a method or a strategy that would avoid an extremely functional

²¹⁵ Cesare de Seta, *L'Architettura del Novecento*, (Torino: UTET, 1981), 144

²¹⁶ Ibid, 171.

agenda by proposing a dichotomy between the city as a functioning organism and its formal expression of it, which Samoná addresses in his analysis of the work of Tony Garnier, Le Corbusier, and Walter Gropius, also with particular emphasis on the production of British town planners and their conformity with the territory. Essentially, According to Samoná, the discipline of architecture and urban planning needed a new reassessment that would hopefully generate new methodological directions.²¹⁷

As observed before, even the young Italian architects gathered around Rogers and his *Casabella Continuità* were aware of a change of tendency, a modernist tendency, that was not so integrated with the Italian urban landscape. The modernist agenda supported by CIAM and Le Corbusier was predominantly dictated by a design strategy based on the idea of strict zoning recommendations of the Athens Charter, with little regard to the historical city. In Italy, it was certainly difficult to literally purge existing buildings or even entire neighborhoods with historical relevance just because they stood in the way of the plan. Because of this impulse, Giuseppe Samoná works toward the development of a general theory and design approach that would address both architectural and planning issues, and which will be delineated in a collaboration in 1966 with Guido Canella, Aldo Rossi, Manfredo Tafuri, Vittorio Gregotti, Mario Coppa, Alberto Samoná, Gabriele Scimeni, and Luciano Semerari; This collaboration will be

²¹⁷ Giuseppe Samoná, *L'Urbanistica e l'Avvenire della Città negli Stati Europei*, (Roma: Laterza, 1985), 64-65.

published in 1968 under the title of *Teoria della Progettazione Architettonica*, and it will represent another important step toward the formation of the so called *Tendenza*.²¹⁸

*Il tema non si è impostato sulla domanda pregiudiziale: se possa esistere una Teoria della Progettazione, perché tale domanda si è ritenuta troppo astratta dalle finalità operative che il tema si proponeva. Mi rendo conto dell'apparenza sbrigativa di una presa di posizione così fatta e del suo formale schematismo, per qualcuno, forse, ontologicamente scorretto. D'altra parte, la possibilità o meno di fondare una Teoria della Progettazione Architettonica, dipende essenzialmente nelle convinzioni culturali e filosofiche di chi si propone di trattare questo tema; e, più particolarmente, dal tipo di logica a cui egli fa riferimento nel definire il problema ontologico.*²¹⁹

Again, the importance of this collection of essays has to be seen and consequently understood in its holistic attempt to define a general theory of architecture and planning. Samoná believes that there is a precise cultural and philosophical implication related to the formation of a general design theory, which is essentially based on a logical understanding of issues that might define the ontological problem at the bases of design. But trying to compile a general theory that govern the discipline of architecture can also be seen as an foolish proposition as it might imply the necessity for a reductive methodology, which leads to oversimplification of the discipline. Yet, Samoná understood the necessity of such a process in a very different manner; he

²¹⁸ This book represents a collection of essays that deal with the general theories of architectural design, and it is based on several lectures and seminars given at the IUAV during the academic year 1965-66.

²¹⁹ The subject matter is not based on the preliminary ruling: whether there might be a design theory, because this question is considered too abstract from the operational goals that the issue proposed. I realize the appearance of such a hasty position perhaps too formally schematic, for some, perhaps, ontologically incorrect for others. On the other hand, whether or not to establish a theory of architectural design, it depends essentially on the cultural and philosophical convictions of whom proposes to address this issue, and, more particularly, the type of logic to which he refers in defining the ontological problem; (my translation), Giuseppe Samoná, *Teoria della Progettazione Architettonica*, (Bari: Dedalo, 1968), 7.

believed that a general theory of architecture did not necessarily mean oversimplification of the design method, but it could be produced by heterogeneous approaches that can be recognized in the diverse subjective expressions of the design process, which is always structured toward the definition of architecture's conceptual characteristics. The eight essays, included in Samoná's *Teoria della Progettazione Architettonica* (Figure 16), are all intended to highlight this view; in a way, the topics analyzed in this book recognize the same institutionalized procedural patterns of the design process. There are certainly common patterns that sometime lead to different conclusions, but what is important here is the recognition of a tendency that tends to accentuate the singularity of the different phases of the design process, which are essentially based on individualistic propositions. What drives a design process can be addressed by historical, technological, and institutional parameters, which in a very deterministic way define the formal expression of the architectural object. Architecture is always defined by its contextual situations.²²⁰ Clearly in line with Samoná's proposition, Manfredo Tafuri, in his essay *Le Strutture del Linguaggio nella Storia dell'Architettura Moderna* tries to construct a critical framework in order to understand the complexity of the architectural object with its historical background. Tafuri also believes that the historical analysis has to be based on a critical research for those elements of continuity and crisis, which explain the success or failure of a method. Thus, it is about defining those historical events and parameters, recognizing its thematic and formal expressions, and eventually reducing them in order

²²⁰ Giuseppe Samoná, *Teoria della Progettazione Architettonica*, (Bari: Dedalo, 1968), 7,



Figure 16. Giuseppe Samonà, *Teoria della Progettazione Architettonica*. Bari, Italy: Dedalo, 1968. This collection includes essays by Manfredo Tafuri, Vittorio Gregotti, Luciano Semerani, Aldo Rossi, and Guido Canella; this represents one of the first theoretical and methodological expression of *Tendenza* that was assembled and published to underline an ongoing tendency in Italian design (Image edited by Author).

to isolate procedural structures.²²¹ Tafuri operates according to a structuralist method in which he focuses on the recognition of permanent structures and the relationships between them; consequently, one or more units of a structure can also undergo changes, but the transformed structure will still be recognized and classified as the same one. This description in terms of dissection and articulation is helpfully suggestive. To dissect a work of art and its historical background in order to determine its structures is to look below the surface of the work. In other words, in order to isolate its structuring principles and the elements that form the structures, we have to look beyond that which is immediately manifested. By doing so, Tafuri identifies important historical aspects that also produce particular generative processes while using a synthesis between objects and subjects, which also creates a formal rigor that regulates the chaotic discontinuity of history. Tafuri, then, concludes his article by recognizing in Aldo Rossi and Louis Kahn the presence of this methodological and formal ability to be significant but rigorous, while overcoming instrumental historicist propositions based on variety of architectural languages.²²²

A similar tendency can be recognized in Rossi and Semerani's essays. In *Razionabilità della Progettazione Architettonica*, Luciano Semerani analyzes the importance of particular historical periods and its characterizing monuments, which define particular urban and formal expression of the city. It is through monuments that we can understand particular morphological formations of the plan, but this process has to be complemented by a critical recognition of history as a collection of events and

²²¹ Ibid, 13.

²²² Ibid, 30.

realities.²²³ In order to be able to design the future city, we have to be able to comprehend the historical layers of the present city, but only if they are considered within a cyclical process of conservation that eventually leads to the design of the new. Yet, this method does not produce open formal explorations, but it reduces architecture to a system of recurrent signs, building types, that can be generated and then manipulated while keeping the same original identity.²²⁴

Aldo Rossi's *Architettura per Musei* goes way beyond Semerani's essay. Rossi states that the formation of a theory of architectural design has to be the very first objective of a methodological school.²²⁵ Rossi recognizes the close association between theory and practice, between ideas and the making of them, but most importantly, he identifies the necessity of a theory as a fundamental certainty toward an architectural tendency. Interestingly enough, this proposition was antithetical to the premises of modernism, which proposed a new vision based on pragmatism and functionality. Yet, this empirical agenda resolved into a sort of professionalism that ended up reducing Italian architecture to a discipline dominated by utilitarian propositions. Thus, the first principle for a theory of design is embodied into the search for a thematic procedure within the field of architecture and to continue addressing that procedure and its various problems. This coherent attitude demonstrates a clear understanding of subjective and experiential proponents; all we have learned from our discipline is not lost, but it is used to address the importance of historical continuity that had been generated by Ernesto

²²³ Ibid, 8.

²²⁴ Ibid, 9.

²²⁵ Ibid, 123. Also see Aldo Rossi, *Selected Writings and Projects*, (London: Gandon Editions, 1983), 15.

Rogers during the early years of *Casabella Continuità*. For Rossi, the search for a thematic architectural procedure is found in the recognition of a general problem, which is always tangible to an architect's personal and individual knowledge and experience. Rossi states that it is essential to look back at one's own work and ask the following question: why and how did I do that?²²⁶ There is, thus, an internal generative principle that needs to be acknowledged and perhaps emphasized, but, first and foremost, this individualistic proponent has to be firmly framed and understood in order to develop a coherent general theory.

*All'architettura manca in verità il modello formato dalla natura; ma ne ha un altro formato dagli uomini, seguendo l'industria naturale in costruire le prime abitazioni.*²²⁷

Rossi also addresses the importance of architecture as a collective practice finalized to the production of collective spaces such as cities, which are understood as the expression of stability and shelter. Those major components are generally expressed into architecture that is finally detached from any art or science since it operates within the nature of the city and its transformations. Architecture is then understood as a tangible sign of nature's human transformation characterized by permanent principles that, although essentially immutable, produce different formal solutions. Rossi proposes a methodology rooted into the deep understanding of the city as a collective architecture that needs to be studied according to its particular layers and components. Rossi

²²⁶ Ibid, 124.

²²⁷ Truthfully, architecture is lacking the models formed by nature; but it has a different one defined by men, which is following the natural industry in building the first houses; (my translation), in Francesco Milizia in Aldo Rossi, "Architettura per Musei," *Teoria della Progettazione Architettonica*, (Bari: Dedalo, 1968), 125, (my translation).

compares the study of the city to the study of language as explained by Ferdinand de Saussure in his *Course in general Linguistics*,²²⁸ in fact, both language and architecture are understood as the collective result of social interactions, which supplies the conceptual framework necessary to understand and express reality, generally defined by words or building.

*Se dunque l'unità deve esistere nell'arte dell'architettura, essa non può avvenire applicando questa o quella forma ma nel cercare quella forma che è l'espressione di ciò che prescrive la ragione.*²²⁹

Architecture is also characterized by a sense of meditation on tangible elements; architects have to address real questions by proposing real answers, a rational ideology that was quite common during the years of the Enlightenment. This is what makes the architect's work unique and distinctive, and according to Rossi, this principle should be at the basis of a new architectural tendency, attentive to the problems it generates and also responsive of a methodology that addresses those problems without proposing pre conceived formal results.

*Noi raccogliamo questa strada dell'architettura come scienza della formulazione logica dei principi della meditazione sui fatti architettonici e quindi principalmente sui monumenti, e pensiamo di verificarla attraverso una serie di architetti e di opere antiche e moderne che noi scegliamo, su cui operiamo un certo tipo di scelta.*²³⁰

²²⁸ Ferdinand de Saussure, *Course in General Linguistics*, (Chicago: Open Court, 1986).

²²⁹ Thus, if unity must exist in the art of architecture, it cannot be made by applying this or that form, but it had to be found in a form that is the expression of reason; (my translation), Viollet Le Duc in Aldo Rossi, "Architettura per Musei," *Teoria della Progettazione Architettonica*, (Bari: Dedalo, 1968), 126.

²³⁰ We collect this proposition of architecture as a science of logical formulation of the principles of meditation on the artifacts, and also primarily on monuments and we plan to verify it through a series of architects and ancient and modern works that we choose, and that we operate on a certain type of choice; (my translation), in Aldo Rossi, "Architettura per Musei," *Teoria della Progettazione Architettonica*, (Bari: Dedalo, 1968), 126.

Toward the conclusion of Rossi's essay, we are once again reminded that architectural discussion and its consequent theories must be based on the fundamentals of logic. This is most general form of rational approach to architecture, an approach that seeks, first and foremost, the possibility of logical and transmissible forms. This process generated an autonomous type of architecture that can be understood as prototypical to a variety of opportunistic modifications of it. This is the main reason why Rossi is forcing us to comprehend the internal analysis and constructive characters that define a specific design; in order to do so, we need to develop a comprehensive and coherent theory that governs this process.

Thus, Samoná's *Teoria della Progettazione Architettonica* has to be recognized as an important attempt to define a methodology that will define the work of *Tendenza*. Again, Tafuri, Semerani, and Rossi's essays, have addressed important issues such as historical criticality, the importance of monuments, and the necessity for a rational discipline, but most importantly, at this point, there is a clear recognition that a new tendency had just defined its ideological background, and it had done so by recognizing the importance of a general theory which had so profoundly inspired Giuseppe Samoná. This research continued incessantly at the IUAV, and in 1969 *Gruppo Architettura* was born from a close collaboration between Carlo Aymonino, Gianugo Polesello, Gianni Fabbri, Raffaele Panella, Guido Canella, Costantino "Nino" Dardi, and Luciano Semerani who had assimilated the lessons of Muratori²³¹ and Samoná on the persistent typological and morphological relationship between architecture and urban planning.

²³¹ Muratori had taught at the IUAV from 1950 till 1955. He then moved back to Rome where he taught architectural composition until 1973. Muratori passed away in 1974.

The group produced a series of theoretical documents²³² that summarized this complex relationship, while in 1971 they initiated an intellectual collaboration with Aldo Rossi, which was essentially justified by a common criticism toward technocratic approaches.²³³ However, Rossi had already been involved with the IUAV, as he had served as Aymonino's teaching and research assistant in 1963,²³⁴ collaborating with him in the Monte Amiata Gallarate Housing project in 1967, in which Rossi designed a smaller section of it.²³⁵

From this framework and collection of events and significant collaborations, it becomes evident that Aldo Rossi had assumed the leadership of this new generation of young Italian architects; yet, to better understand Rossi's increasing interest toward the city and its architectures, which will become one of *Tendenza*'s recurring themes, we have to look back at the work of another important Italian architect, Ludovico Quaroni, who, 1963, had invited a talented young Aldo Rossi to be his teaching assistant at the *Scuola Urbanistica* in Arezzo.²³⁶

Ludovico Quaroni and the Roman School

Before discussing of the importance of Ludovico Quaroni within the cultural and architectural project of *Tendenza*, I believe that it is necessary to trace the evolution of

²³² For the initial programmatic essay of the Gruppo Architettura see Appendix A.

²³³ See Carlo Aymonino, Gianugo Polesello, Gianni Fabbri, Raffaele Panella, Guido Canella, Costantino Dardi, and Luciano Semerani, *Per un' Idea di Città: La Ricerca del Gruppo Architettura a Venezia (1968-1974)*, (Venezia: CLUVA, 1984), 31.

²³⁴ Rossi served both as Aymonino and Quaroni's assistant in 1963.

²³⁵ Claudia Conforti, *Il Gallarate di Aymonino e Rossi*, (Roma: Officina Edizioni, 1981), 49.

²³⁶ See Alberto Ferlenga, *Aldo Rossi: 1959-1987*, (Milano: Electa, 1996), 311.

the Roman school starting from the fascist years. We know that the idea of a fascist architecture had found its ultimate expression in two different groups: the Milanese group lead by Giuseppe Terragni, and Ernesto Rogers, and the Roman group lead by Marcello Piacentini. Both of these groups were trying to develop a new Italian architectural style, a rationalist one,²³⁷ which would represent the nationalistic impulse of the Fascist regime. In Rogers' words "We based ourselves on a syllogism which went roughly like this: Fascism is a revolution, modern architecture is a revolution, therefore it must be the architecture of the Fascism."²³⁸ But while the Milanese school was more interested in the northern rationalist tradition set by Mies van der Rohe, Gropius, Le Corbusier, and the formal expressions of Russian Constructivism, the Roman school found itself more interested into a return to a rational monumentality typical of the Neoclassicism.²³⁹ The Roman's position was accentuated by the fact that Marcello Piacentini, roman architect very close to Mussolini's regime, had established a preferential relationship with the Ministry of National Education, which essentially enabled him to assume influential positions in the professional field of architecture.²⁴⁰

²³⁷ From Gruppo 7's Rationalist Manifesto: "The new architecture, the true architecture, must result from a rigid adherence to logic, to rationality. We do not pretend at all to create a style (similar attempts of creation from nothing led to results such as the Liberty style); but rather from the constant use of rationality, from the perfect correspondence between the structure of the building and the purpose it serves, to allow a style to be born through a process of selection," in Terry Kirk, *The Architecture of Modern Italy: Volume 2*, (New York: Princeton Architectural Press, 2005), 74.

²³⁸ Ibid, 83.

²³⁹ Cesare de Seta, *La cultura Architettonica in Italia tra le due guerre*, (Roma: Laterza, 1989), 207.

²⁴⁰ Piacentini was professor at the University of Rome, editor of the architects' syndicate publication, members of juries for the nation's most important works, and last but not least, consultant for some of Mussolini's largest projects. See Terry Kirk, *The Architecture of Modern Italy: Volume 2*, (New York: Princeton Architectural Press, 2005), 85.

Piacentini, who was the son of Pio Piacentini,²⁴¹ the architect of the Palazzo delle Esposizioni, had completed his degree in architecture with a thesis on the importance of neoclassical architecture, which certainly explains the directions taken by the Roman school and its members.

Ludovico Quaroni, who graduated in 1934, was unquestionably one of the major products of this school along side with Mario Ridolfi, class of 1929, and Saverio Muratori, who graduated in 1933. His line of work was also very close to the neoclassical and conservative premises implemented by Piacentini; consequently, most of his early work such as the Auditorium di Roma, an urban plan for Aprilia (1935), the Palazzo dei Ricevimenti e dei Congressi (1937), Rome; and the Piazza Imperiale (1939) for the *Esposizione Universale* in Rome showed evident affinities with Swedish Neoclassical architect Gunnar Asplund and Erich Mendelsohn. Yet, he also develops a strong interest toward the reading of the urban plan through an understanding of its morphological composition, a concept borrowed from biology, where final form is obtained by essentially accumulating particles.²⁴² In 1948, Quaroni starts producing ideas for a new plan of the city of Rome, mostly defining areas for future developments; in 1959, when Samonà's *L'Urbanistica e L'Avvenire della Città negli Stati Europei* is finally published, Quaroni reviews the book recognizing its incredible anti-functionalist agenda.

²⁴¹ Marcello Piacentini was also Carlo Aymonino's uncle, one of the major contributors to the Italian Tendenza. Later on, Aymonino became a member of the young communists party, which upset Piacentini terribly. See Federica Visconti, Renato Capozzi, *Architettura Razionale* (Napoli: CLEAN, 2008), 27.

²⁴² Ludovico Quaroni, *La Torre di Babele*, (Padova: Marsilio, 1967), 25-27.

Thus, Quaroni gets involved into the debate concerning the new reassessment of the discipline of architecture and urban planning around the late 50s and early 60s, a topic that was also addressed in a sharp letter written to *Casabella Continuità* by Manfredo Tafuri, who was also debating for a better understanding of changes affecting what he called the city-region.²⁴³ Quaroni's position becomes more evident after the publication of *La Torre di Babele*, which is essentially a collection of essays and other writings pertaining the architecture and planning of the city. It has to be said that, in 1963, Quaroni had invited Aldo Rossi to be his teaching assistant at the *Scuola Urbanistica* in Arezzo. Most of the essays that were included in *La Torre di Babele* had been essentially written under several occasions, and while fragmentary for its chronological nature, its main position was always unitary, clear, and coherent: the recurrent necessity to express urban form through new methodological and compositional tools.²⁴⁴ Again, although fragmentary for its chronological assemblage, Quaroni's essays are all driven by a common threat, a common tendency. In the introduction to Quaroni's book, Aldo Rossi writes:

*On one end, there is a disorder of the institutions and the loss of common meaning in the confusion of languages, and on the other end, an interest for a plan broader, more complex, even contradictory and confused in the construction of reality [...] (la Torre) is an allegory of humanity's effort to build secular rationality in all its aspects.*²⁴⁵

²⁴³ Titia Rixt Hoekstra, *Building Versus Building*, (Groningen: University of Groningen Press, 2005), 118. Also see, Manfredo Tafuri, "Un dibattito sull'architettura e l'urbanistica italiane", *Casabella Continuità*, no. 241, (July 1961), 56.

²⁴⁴ Ludovico Quaroni, *La Torre di Babele*, (Padova: Marsilio, 1967), 11.

²⁴⁵ *Ibid*, 12, (my translation).

No compositional reasoning is possible without a conscious reflection on the tools of implementation, regulations and policies. Quaroni applies this necessity to a certain utopian approach; he does so to avoid any ideological contamination, and to keep architecture as a field dictated by positive and optimistic solutions without the limitations of a nihilistic and critical approach. Those positive solutions ought to be found in the architect's ability to govern and control the form of the city. Quaroni analyzes the linkage between political powers and the necessity to produce form, which has to be understood as an aesthetic component. Quaroni is also very critical of those who operate and practice architecture without truly understanding those political and social implications that influence urban form; there has to be a specificity in which we, as architects, have to learn how to control urban form and its architectural expressions. Most importantly, Quaroni recognizes the importance of compromising as a way to achieve a formal exploration that complies with local regulations.²⁴⁶ This compromise dictates a new understanding of form, which is not a consequence of particular compositional or diagrammatic operations, but, instead, it is the resultant of a series of processes, political, and social, articulations. Quaroni's work has indeed a certain sensibility that can be found in his capacity to merge the process of architectural composition with the laws and regulations that govern the design of the city and its masterplan. Yet, Quaroni also looks into the significance of the historical city and its underlying structure.

La città storica ha un chiaro disegno: ha una struttura. La parte corrispondente agli sviluppi degli ultimi due mezzi secoli ha ancora un

²⁴⁶ Ibid, 37.

*disegno, che tuttavia mostra tutta la sua fiacchezza e l'assenza assoluta di qualsiasi struttura. La parte corrispondente agli sviluppi più recenti è addirittura il caos: quartieri disegnati con un certo impegno, solo planivolumetrico, sorgono qua e là in mezzo alla campagna, dove contemporaneamente, come colture bacilli ma senza la naturale armonia che vediamo in queste, seguitano ad essere costruite case isolate indipendenti da tracciato vario.*²⁴⁷

Once again, the city is understood as a collective manifestation of particular events, concept that will be revisited and further developed by Aldo Rossi, where its buildings are designed according to functional, technological, and aesthetical proponents that should also comply with the nature of the urban plan itself. There is thus a strict linkage between buildings, intended typologically, and their morphological expressions within the plan of the city. This relationship is clearly visible in the historical city, which has an underlying structure dictated by temporal changes and modifications. Those changes end up affecting the morphology of the urban block, and consequently the morphology of the city. To be able to understand this process, the city has to be analyzed according to three principal elements or categories: its physical limits, its continuous residential fabric, and the placement of monuments as emergent points.²⁴⁸ Quaroni methodological practice will define some of the major programmatic articulations of the Roman school, which, along with the urban studies on typo-morphology generated by Saverio Muratori, will be fundamental to the consolidation of a rational tendency.

²⁴⁷ The historic city has a clear plan: it has a structure. The part corresponding to the developments of the last two half centuries have a plan, which shows its weakness, and the absolute absence of any structure. The corresponding part of the latest developments is chaos: districts planned with some effort, only plano-volumetric, appear here in the countryside, where at the same time, crop bacilli, but without the natural harmony that we see in them, and isolated houses continue to be built without any correspondence to the natural path; (my translation), Ibid, 60.

²⁴⁸ Ibid, 88.

In conclusion, this chapter has tried to explain the articulation of a tendency, the so-called *Tendenza*, which will be essential toward the understanding of the XV Milan Triennale of 1973. Its heterogeneous, yet unitary, principles are often and mistakenly attributed to the audacity and talent of Aldo Rossi; yet, I have demonstrated that the rational tendency as well as its historical, urban, and didactic components, were rather the result of an intricate chronological process that saw the active involvement of Ernesto Rogers, Giuseppe Samoná, Ludovico Quaroni, and their individual schools towards the search for an appropriate design methodology that would characterize the rebirth of a discipline whose ideological and professional premises had been profoundly damaged at the end of the second World War. Pre-existing contextual components, the crucial role of history as a critical container of architectural possibilities, the tradition of the European city with regards to its urban fabric, and the intellectualization of the role of the architect are all characteristics of a discourse that will define the ideological premises of *Tendenza*, and consequently the International section of the XV Milan Triennale of 1973.

CHAPTER IV

THE CITY AS BACKGROUND OF A NEW METHODOLOGY

La fondazione di una scuola di Architettura con Caratteri disciplinari autonomi non rientra comunque nella logica dei sistemi né si misura con un sistema: non può essere ridotta a qualche slogan in quanto rappresenta la fondamentale tendenza dell'arte e della scienza verso un tipo di libertà dal bisogno e dall'utile. Questa corrente si è presentata nella ricerca mediante l'ipotesi di poter costruire un sistema logico formale dell'architettura come momento globale della conoscenza; in particolar modo la ricerca sui fatti specifici dell'architettura si prospetta come il più incisivo e più esatto aspetto della formazione di un architetto. Per quanto ci riguarda, si considera altamente formativa la osservazione che tende a ricostruire la logica del farsi di certi fenomeni all'interno della città, individuandone i rapporti con le preesistenze fisiche e normative ed amministrative.²⁴⁹

A New Didactic: *Caratteri Distributivi degli Edifici*

Certainly, the birth of *Tendenza* could have not been possible without an innovative didactic agenda. We have seen how certain academic environments, such as the school of Rome, had been administrated in quite a conservative way, while the Politecnico in Milan had been a little more radical about its curriculum and its academic pedagogy. Yet, in Rome, things were actively changing, mostly because of a people like Bruno Zevi and Giulio Carlo Argan, but also because of a progressive student-driven

²⁴⁹ The foundation of a school of architecture with self-disciplinary character does not fit however, with the logic of the systems, neither does it measure itself with it: it can not be reduced to a few slogans as it constitutes the fundamental tendency of art and science toward a kind of freedom from needs and utility. This current tendency was presented into research through the hypothesis of building a formal logical and architectural system as a moment of global knowledge; especially the research on those specific facts concerning architecture itself as the more accurate aspect one's professional training. For us, it is considered highly formative the tendency, which reconstructs the logic of certain phenomena within the city, identifying its relationships with the existing regulatory and administrative components; (my translation), Giovanna Gavazzeni, Massimo Scolari, "Note metodologiche per una ricerca urbana," *Lotus*, Vol. 7, (1970), 119.

campaign organized by Manfredo Tafuri.²⁵⁰ There was in essence a systemic separation between the older academic establishment, mostly conservative and fascist, and the younger generations, more inclined in a better understanding of modernity.²⁵¹ Thus, it is not surprising that students started occupying schools and universities, protesting against that old establishment and its conservative academic system.²⁵²

Thus, curricular changes were in the air; some modifications had actually been addressed by a research proposal prepared by Ludovico Belgiojoso and Franco Albini, a proposition centered on the idea of overcoming bureaucratic academic frameworks by looking at more experimental models based on a more comprehensive and interdisciplinary agenda.²⁵³ Within this confused situation, it is necessary to spend some time understanding the autonomous formation and future didactic developments of the course *Caratteri Distributivi degli Edifici*, literally distributive characters of buildings, and its cultural, and its methodological implications with *Tendenza*.

²⁵⁰ Tafuri had formed a group of students called ASEA, the Association of Architecture Students, established with the intent to challenge the current academic curriculum.

²⁵¹ Most of the academic positions in both Rome and Milan had been appointed during the Fascist regime, following a clientistic agenda dictated by Mussolini and his governmental administration. Essentially, you had to be a member of the PNF (Partito Nazionale Fascista) to be considered for any important administrative/academic position. See Cesare de Seta, *L'Architettura del Novecento*, (Torino: UTET, 1981).

²⁵² A group that included a young Manfredo Tafuri initially occupied the Valle Giulia Architecture School in Rome in 1958. Another general occupation took place in 1963, when students protested against the conservatism of the academic curriculum, mostly implemented by Saverio Muratori, and its fascist intellectual agenda. New professors, mostly associated with the communist party, were hired as a result of this protest; among those it is important to note Bruno Zevi, Luigi Piccinato and Ludovico Quaroni.

²⁵³ See an outline of the new proposals presented to the university: "Proposta di 'Sistemi di Ricerca' Aggregati, da Parte dei Gruppi di Ricerca Costituiti per Iniziativa dei Docenti Prof. F.Albini e L.Barbiano di Belgiojoso," *Proposte di Ricerca Presentate alla Commissions Tecnica in Risposta al Questionario del 29/12/1967*, typescript, document no. 4156 (Biblioteca Centrale, Facoltà di Architettura, Politecnico di Milano, Gennaio 1968), 2-15.

With the establishment of the modernism in architecture, functionality, intended as the actualization of real and social needs, became the most important design defining principle. Even Giulio Carlo Argan defined functionalism in architecture as the most immediate form of understanding of the real.²⁵⁴ This newfound interest pushed for a new didactic that would address issues of function and its generative articulation on architectural form. Thus, the course *Caratteri Distributivi degli Edifici* ended up absorbing this newfound interest in the relationship between function and form. Raffaele Fagnoni and Enrico Calandra were the very first precursors of this didactic approach based on an understanding of the characteristics of space distribution. Calandra was a prominent Sicilian architect who first taught at the university in Messina, and then in Rome, where he collaborated with Saverio Muratori toward the didactic of *Caratteri Distributivi degli Edifici*.²⁵⁵ Fagnoni graduated from the school of architecture in Rome back in 1924; upon his return in Florence, he founded the Florentine section of the Fascist union, and he became one of the major promoters of the *Regia Scuola di Architettura* where he also taught a course on the survey of monuments. In 1931, he obtained tenure, so in 1933 he began teaching the course *Caratteri Stilistici dei Monumenti*, which was then turned into what was known as *Caratteri Distributivi degli Edifici* in 1939.²⁵⁶

The course itself was organized around the recognition and interpretation of functional needs and the formal response to them, in very similar way to what Jean

²⁵⁴ See Giulio Carlo Argan, *L'Arte Moderna. Dall' illuminismo ai movimenti contemporanei: L'epoca del funzionalismo*, (Firenze: Sansoni Editore, 1997), 248-378.

²⁵⁵ Cesare de Seta, *L'Architettura del Novecento*, (Torino: UTET, 1981), 155.

²⁵⁶ Ibid, 155.

Nicolas Louis Durand had analyzed in his *Précis des leçons d'architecture données à l'École royale polytechnique*.²⁵⁷ The basic pedagogy was oriented toward an understanding of typological thinking of specific building types in relation to their functional characteristics. This approach would facilitate the recognition of qualities that would explain, through the use of schematic diagrams, a particular building form or the evolution of it. Those schematic diagrams (see Chapter II figure 3,4,5) will then become necessary toward the completion of a new methodology based on the synthesis of formal and functional attributes. Ludovico Quaroni continued this methodological interest, and he specifies, in an article published on the magazine *Metron* in 1947, that the analysis of the characteristics and qualities of an architectural organism is inseparable from its distributive, functional and stylistic attributes, and should be appropriately analyzed in order to understand the specificity of a building.²⁵⁸

In a lecture held at the IUAV in Venice in 1955, Ludovico Belgiojoso expressed the importance of the *Caratteri Distributivi degli Edifici*, which according to his personal point of view, had to be understood as a guiding discipline, but only if it had established a collaboration with social, political, and technological aspects of society.²⁵⁹ The course was not intended as a collection of formal solutions, but it should be comprehended as a systemic methodology that analyzes a building's functional qualities that produce harmonious and practical outcomes. But most importantly, Belgiojoso

²⁵⁷ The book was also published for an English audience under the title *Précis of the Lectures on Architecture: With Graphic Portion of the Lectures on Architecture*.

²⁵⁸ Ludovico Quaroni, "Caratteri degli Edifici," in *Metron*, n.19-20 (1947).

²⁵⁹ Ludovico Belgiojoso, "Per una metodologia dell'analisi architettonica nel corso di Caratteri Distributivi degli Edifici," in *Casabella Continuità*, n.216, (September 1957), 47-49.

states that this course ought to be synchronically integrated with the design studios in order to complement their agenda based on compositional and generative processes. It is necessary to state that this didactic had been implemented in Venice with a certain success, considering the remarks from Belgiojoso's lecture then published on *Casabella Continuità* in 1957.

*Questa visione che porta all'integrazione delle materie di insegnamento, risponde ad un'esigenza fondamentale della prassi architettonica, la quale va incidendo nel felice orientamento didattico della Scuola di Venezia.*²⁶⁰

Thus, architectural composition is indeed characterized by a comprehensive integration of those cross disciplines and socio-cultural elements that define the context of it; every building has a very peculiar and specific purpose, which is usually found in its functional and programmatic use. A church will function as a place for religious congregation, while a school will serve as an educational outlet; the course *Caratteri Distributivi degli Edifici* was established to put emphasis on those phenomenological components that characterize the function of those building, which are also historical and contextual. There is indeed a function that every building has to accomplish; this function is in correspondence with the needs of a very specific group of people, and it has some particular characteristics inherent to its contextual environment. Certain components can also remain constant and unchanging. Again, a church serves a very specific use and it is usually associated with a specific procedural and phenomenological

²⁶⁰ This vision, which leads to the integration of different disciplines, answer to a fundamental requirement of architectural practice, which has been significant within the good didactic orientation in Venice; (my translation), Ibid, 47, (my translation).

composition of its interior spaces, and the same can be said for a school or any other building; but the same formal expression of a church or a school can be altered by chronological variations of uses and ways of life that respond to the progresses of society. This concept will be further analyzed by Aldo Rossi in *L'Architettura della Città*, where he stated that a building's own forms could be constant while its function is prone to changes. Even considering this dynamic peculiarity of buildings, it is still opportune to understand their operational functionality as well as their formal outcomes. Buildings, intended as organisms, are composed by parts that complement and harmonize their nature; however, its interpretation is still unitary, because its spatial and structural components are assembled to respond to a specific expression of life. Consequently, *Caratteri Distributivi degli Edifici* can be defined as the study of arrangements and dimensioning of an architectural organism in relation to its function, and its cultural and geographic context. Its importance in relation to my research has to be seen in its possibility to generate a method of analysis that can be implemented in architecture and planning. In fact, the nature of this course proposed a logical and rational system that investigated principles of functional distribution and their relationships with building tectonics and urban form, a pedagogy that is still integrant part of the architectural academic curriculum in Italy.²⁶¹

²⁶¹ The course *Caratteri Distributivi degli Edifici* is still taught in various schools of architecture in Italy, and it has included other particular subjects such as typology and morphology. The course is also often integrated with the didactic of design studio. For a better understanding of its academic implementation, see samples of the syllabi for *Caratteri Distributivi degli Edifici* and *Caratteri Tipologici e Morfologici dell'Architettura* as taught at the IUAV, the Politecnico in Milan, the University of Naples: Federico II, the University of Cagliari in Sardinia, the University of Florence, and the University of Ferrara in Appendix B.

Interestingly enough, Aldo Rossi, Giorgio Grassi, and Carlo Aymonino ended up teaching *Caratteri Distributivi degli Edifici*, a proponent that produced a collection of seminal work and essays that will illustrate the major premises of *Tendenza*, and that will be evaluated later on in this chapter in order to present some of its most important methodological characterizations and positions.²⁶² Yet, it is also important to step back and revisit the work of Saverio Muratori in order to understand its relevance to the cultural and methodological project of *Tendenza*.

Saverio Muratori's Typological Studies

Saverio Muratori, born in Modena in 1911, graduated from the *Scuola Superiore di Architettura* in Rome in 1933. Those were the years characterized by the extreme monumental classicism of Marcello Piacentini, which essentially had defined the major guidelines of the Roman school so close to the Fascist regime. Early on, Muratori started collaborating with Alberto Calza Bini, another influential roman architect interested in issues of public and residential housing and president of the *Istituto Case Popolari* (ICP) di Roma, the Italian institute for public housing. From 1935 until 1939, Muratori works with Francesco Fariello and Ludovico Quaroni, a collaboration that will produce several urban proposals for the city of Rome such as the scheme for an Auditorium in Porta Capena di Roma, and the Piazza Imperiale dell' E42, a residential and business district in Rome (now EUR). In 1942, Muratori obtains the professorship in Architectural Design and Urban Planning, while, in 1944, he collaborates to the didactic of the course

²⁶² Most of which will be analyzed in a comprehensive break down of the CLUVA and CLUP academic readers produced both in Venice and Milan.

in *Caratteri Distributivi degli Edifici* taught by Enrico Calandra at the school of architecture in Rome. In 1950, Muratori, invited by Giuseppe Samoná, moves to IUAV in Venice where he starts teaching *Caratteri Distributivi degli Edifici* until 1954. The same year, Muratori returns to Rome where he is finally appointed chair of Architectural Design. Those were also the years when students associations were aggressively criticizing faculty members and the implementation of a conservative curriculum still based on that classical agenda supported by both Piacentini and Giovannoni. It is opportune to remember that Manfredo Tafuri was indeed one of the most critical toward the didactic supported by Saverio Muratori, who, according to the same Tafuri, was trying to keep contemporary architecture away from the curriculum.²⁶³ Yet, Muratori's approach had a very defined urban and typological background that was based on studies and observation of historical typological and morphological mutations overtime. It is thus opportune to understand his approach in order to follow some of the governing principles that will be further developed and analyzed by Aldo Rossi, and Carlo Aymonino in three major readers produced at the IUAV for the course of *Caratteri Distributivi degli Edifici* from 1964 to 1966.²⁶⁴

Muratori's practice is quite complex and difficult to frame as it shows both a rationalist tendency, and signs of classical monumentality, very clear in his design for the E 42, and some touches of Scandinavian design. It is this international awareness that

²⁶³ Andrew Leach, *Manfredo Tafuri: Choosing History*, (A&S Books: Ghent, 2007), 7.

²⁶⁴ Those readers are: AA.VV., *Aspetti e Problemi della Tipologia Edilizia*, (Venezia: CLUVA, 1964), AA.VV., *La Formazione del Concetto di Tipologia Edilizia*, (Venezia: CLUVA, 1965), and AA.VV., *Rapporti tra la Morfologia Urbana e la Tipologia Edilizia*, (Venezia: CLUVA, 1966).

makes Muratori's work central to an understanding of the discipline of urban planning in Italy because he was essentially able to shake up a static architecture culture characterized by a strong technocratic stance with an optimistic design attitude attentive to traditions yet still open to modernity.²⁶⁵ Muratori participated actively to the INA Casa, a plan institutionally organized after the second war to provide public housing, as it represented a great opportunity to work and practice in a tough financial time while researching the effects of phenomenology in city planning.²⁶⁶ His methodology represented an interesting mix of tactics borrowed from the first rational tendency and the study of Aalto and Asplund.²⁶⁷ Fundamentally, Saverio Muratori had created design pedagogy attentive to existing urban conditions, local traditions, and conscious of the genius loci, in this case building types that characterized the Italian urban landscape. It is evident that the studies on typo-morphology initially developed in Venice and continued in Rome by Saverio Muratori had created a school of thought that was more interested in the way buildings are structured and formed rather than establishing a methodological tendency, which will be indeed developed later on by Aldo Rossi, Giorgio Grassi, and Carlo Aymonino. Muratori firmly believed in an analytic attitude that would explain urban phenomena by recognizing points of continuity and rupture within the city. This methodology was primarily based on the relationship between typological studies and the morphology of the urban plan. Thus, urban form was to be understood as a collection

²⁶⁵ Giorgio Pigafetta, *Saverio Muratori Architetto: Teoria e Progetti*, (Venezia: Marsilio Editori, 1990), 14.

²⁶⁶ INA stands for Istituto Nazionale delle Assicurazioni, literally the National Institute for Insurance, an administrative entity that managed funds for public housing.

²⁶⁷ Ibid, 47.

of buildings categorized by different typological formations that, based on certain progressions, end up transforming the city plan overtime.²⁶⁸

The period between 1930s and 1940s was critical in the theoretical formation of Saverio Muratori. I have previously underlined the instability, both political and cultural, of the Italian architecture culture, which had operated in a sort of limbo between classical revivalism and rationality. However, Muratori was highly conscious that a stronger and more coherent design methodology was indeed necessary to overcome such a messy and stagnant situation. While architects and planners were struggling to get public commissions, which in most cases meant joining a certain political party, Muratori started researching into interdisciplinary fields such as philosophy in order to understand the city as the projection of collective spirituality.²⁶⁹ This renewed conscience offered Muratori a glimpse of what his future work would have looked like, and instead of wasting time producing plans that would have legitimized a specific political entity, he started searching for those urban events that cyclically participate into the shaping of the city creating different types. Consequently and according the Muratori's preliminary research, a new planning practice could only be successful if it acknowledged the presence of a dominant type as a solution to urban disjunctions.²⁷⁰

This system of urban inquiry was based on the reading of the city as a comprehensive artifact made out of events that originated from a specific and creative will to plan. The stratification and overlapping of this process is essentially what

²⁶⁸ Ibid, 97.

²⁶⁹ Ibid, 109-111.

²⁷⁰ Ibid, 98.

interests Muratori the most, who, as a result, starts recognizing minimal patterns of modifications that change the structure and the infrastructures of the city and its architectures. Therefore, the architecture of the city (it is once again important to remind the reader that Muratori's idea originated twenty years before Rossi's *The Architecture of the City* which was first published in 1966) work is understood as a living organism connected in space according to a precise logic that allows for particular formal sequences. Muratori knew that both planners and architects had forgotten about this ability to scrutinize the plan, and only a prompt return to an analytical and critical urban practice could have avoided further disjunctions within Italian cities. To achieve this process, Muratori deploys basic principles of classical practice that emphasize pure volumes and clean tectonics as a way to increase readability of the urban tissues. Thus, if we read the plan of the city through its collection of architectures, we should be able to recognize a generative structure that embodies solutions capable of achieving urban continuity.²⁷¹

Accordingly, Muratori proposes his own vision of the modern movement, a proposition characterized by a rationalized combination of theory and practice of architecture and planning of the city. It is also a personal ability to synthesize urban form that makes his work worthwhile since it represents a meticulous introspection toward a better understanding of the Italian landscape. This search for an appropriate design methodology will drive the emergence of the so-called "Muratorian themes" such as the operational history, the cyclic development of the territory, and the classification of the

²⁷¹ See Giancarlo Cataldi, "Saverio Muratori Architetto (1910-1973). Il pensiero e l'opera," in *Studi e documenti di architettura*, n. 12, 1984.

relationship between typical structures and architectural types in analytical tables.²⁷² Cyclicity is based on a recurrent progression of specific or regional building types that can be classified and studied in their internal distributive, while the understanding of operational history indeed requires further investigation.

Muratori's perception of the disciplines of architecture and urban planning is largely based on a precise historical vision. It is important to remember that in Italy urban planning is considered integrant to the discipline of architecture. The scale of operation is sensibly different, but they both involve a process of design and manipulation of the territory and the city, which is governed by local and regional regulations. Thus, urban planning, as understood by Muratori, concerns the design of the city as a dynamic organism created by man so that it could continuously transform itself. Just as human life goes through changes so does the city and its inner structure.²⁷³ We can't truly base our understanding of the city on analytical aspects such as economics, finances, hygiene, or functions, but we have to assume a more comprehensive approach that consider the finalization of the plan as a far-reaching act toward the creation of coherent places for human beings.²⁷⁴ This integrated approach is based on the historicity of the city as well as the presence of an operational history, which according to Muratori keeps informing the design of the plan. In fact, if history can be understood as a tangible discipline, and if architecture becomes the material expression of this process, then we could develop an operational system based on the critical understanding of formal

²⁷² Ibid, 98.

²⁷³ Ibid, 99.

²⁷⁴ Ibid, 102.

patterns within urban neighborhoods in order to clarify the future phases of growth. Muratori employed this methodology in his famous reading of the urban structure of both Venice and Rome.²⁷⁵ This process of inquiry was based on the individuation of a recurrent and predominant building type that defined the development of a certain urban area over a long period of time. Therefore, historical inquiry becomes operational because it systemically provides for a detailed analysis of prevalent generative patterns within the urban fabric. The concept of operational history was largely criticized by those opposed to extensive typological classifications. Manfredo Tafuri criticized this view as not generative of a necessary “typological dialectic” while he considered it a bit too simplistic because it did not clearly inform the transitioning from typological and distributive studies to the final design of the plan.²⁷⁶ When Le Corbusier proposed his Plan Voisin, Muratori responded with his book on the operative history of Venice, in which he analyzed the importance of the historical center as source of archetypical excavations in a similar fashion to what Benedetto Croce had elucidated years before in his *La Storia come Pensiero e come Azione*:

*How do we create new life? How do we create new actions without exiting the past, or without imposing our belief above it? How do we discard the past if it contains a little bit of us? There is only one way out; a solution that does not break away from the past but that builds upon it and it converts it into human conscience. We have to look at our history, but we need to resolve its problematic structure with a systemic truthiness found in the reality of things.*²⁷⁷

²⁷⁵ See Saverio Muratori, *Studi per un Operante Storia Urbana di Venezia*, (Roma: Istituto Poligrafico dello Stato, 1959), and Saverio Muratori, *Studi per un Operante Storia Urbana di Roma*, (Roma: CNR, 1963).

²⁷⁶ Manfredo Tafuri, *History of Italian Architecture, 1944-1985*, (Cambridge: The MIT Press, 1990), 149-152.

²⁷⁷ Benedetto Croce, *La Storia come Pensiero e come Azione*, (Bari: Laterza, 1938), 122.

The possibility of such a premise is the recognition of what Croce calls the reality of things, or the connection between events and truth. Within this philosophical concept, only who recognizes the presence of a problematic structure can provide for solutions. Muratori always and coherently operated according to this principle. As matter of fact, it is highly plausible that such a strong methodological continuity might have also reduced his entire research to an unexciting and monotonous anthology.

However, Muratori seminal study on typo-morphology was exemplified, like mentioned before, in *Studi per un Operante Storia Urbana di Venezia*, a seminal work published in 1959, which had as primary objectives the clarification of the dual aspects that describe the discipline of architecture and consequently urban planning.²⁷⁸ Muratori focused on the localization of a *tipologia urbanistica*, a typological plan, and the localization of those historical developments within the city that combine the individuality or character of the type as emergence to new planning strategies. Once again Muratori was trying to understand the logic behind the plan of the city intended as a collection of historical types. He opens his research on Venice by identifying fixed elements within the urban structure, and, based on a cartographic analysis similar to the one developed by Giovan-Battista Nolli (Figure 17) in the early 18th century, he lays out typo-morphology tables that contain examples of dominant types by neighborhoods.²⁷⁹

In a sort of structuralist model, Muratori tries to understand Venice's urban structure by redrawing parts of the city in their internal structure (Figure 18, 19, 20, 21).

²⁷⁸ Saverio Muratori, *Studi per un Operante Storia Urbana di Venezia*, (Roma: Istituto Poligrafico dello Stato, 1959), 5.

²⁷⁹ Ibid, 6.

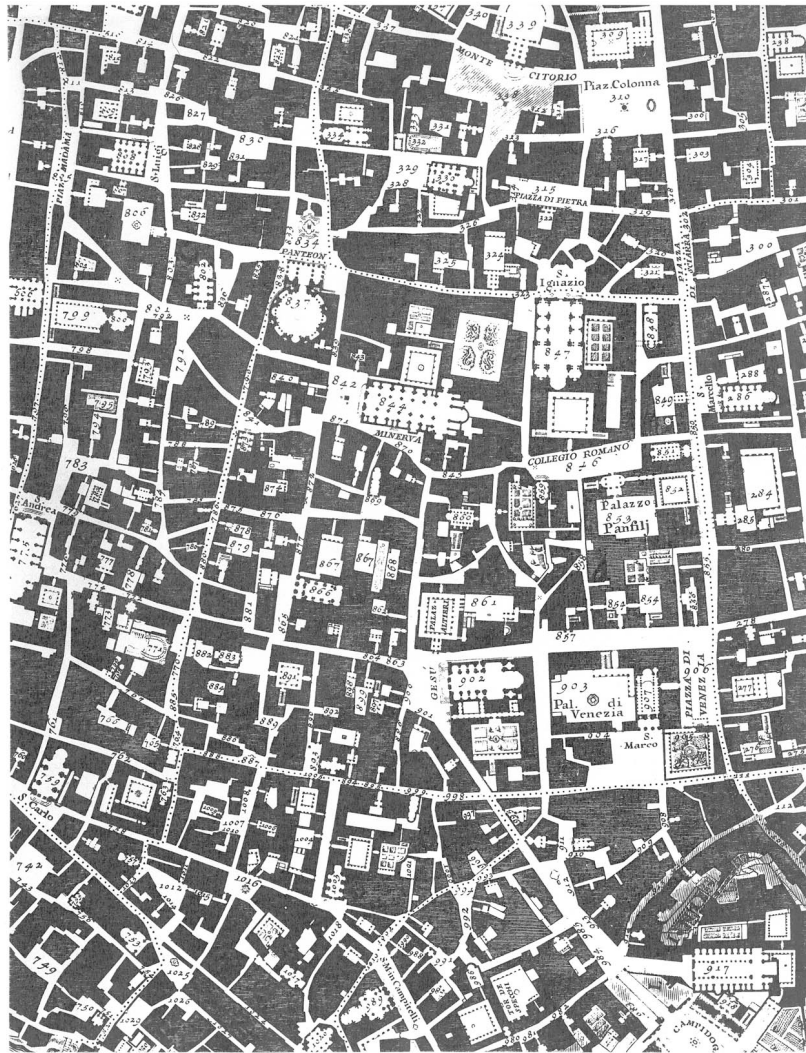


Figure 17. Giambattista Nolli, Nolli Map of Rome, 1748. from “Nolli Map,” University of Oregon, accessed June 10, 2011. <http://nolli.uoregon.edu>. This map shows the internal relationship between buildings and open areas such as courtyards,



Figure 18. Saverio Muratori, *Studi per un Operante Storia di Venezia: TAV XI*. Roma: Istituto Poligrafico di Stato, 1959. Quartiere di Campo Due Pozzi, Typomorphological analysis XV Century. This table shows the initial architectural and distributive structure of the neighborhood.

II FASE: SEC. XVI



Figure 19. Saverio Muratori, *Studi per un Operante Storia di Venezia: TAV XII*. Roma: Istituto Poligrafico di Stato, 1959. Quartiere di Campo Due Pozzi, Typomorphological analysis XVI Century. This table shows the growth of both architectural and distributive structure of the neighborhood, which is expanding according to a precise consolidation of the pre-existing types.

III FASE: SEC. XVIII



Figure 20. Saverio Muratori, *Studi per un Operante Storia di Venezia: TAV XIII*. Roma: Istituto Poligrafico di Stato, 1959. Quartiere di Campo Due Pozzi, Typomorphological analysis XVIII Century. Further consolidation of architectural and distributive building structure. Public and assembly spaces are the most immediate result of this new aggregation.

IV FASE: SITUAZIONE ATTUALE



Figure 21. Saverio Muratori, *Studi per un Operante Storia di Venezia: TAV XIV*. Roma: Istituto Poligrafico di Stato, 1959. Quartiere di Campo Due Pozzi, Typomorphological analysis. Current condition. Final saturation of architectural and distributive building structure. Public spaces, residential enclaves, and circulation armatures are localized around the inner structure of the building block and its entryways.

Buildings ground plans are used to show how the architectural scale translates into the urban scale when large sections of the historic city are analyzed. For Muratori, a codification and recognition of those structural rules that allow the city to grow overtime is crucial because it can offer new strategic solutions based on distributive and morphological characteristics. Thus, it is by properly understanding the logic of neighborhood formation, intended as a collection of types, that a coherent plan can be reiterated. It is important to note that Muratori's planning strategy requires an analysis on multiple scales.

Typological analyses of urban residences at architectural scale are done individually so that the planner can identify differences among architectural repetition. The creation of a master index is the logical conclusion of this study, which was supposed to showcase several combinations of dominant characteristics within the city. It is interesting to note that although this process might appear very formulaic as it offers a sort of recipe of types, it is instead very organic because it portrays the city as an organism that evolves through the development of its organs, or neighborhoods.

Yet, this doctoral work, although is looking back at a very specific architectural methodology, is also trying to understand the discourse of *Tendenza* and project it into the contemporary to see if a rational and urban approach based on the understanding of typological formations and classifications is still plausible in order to redefine a discipline characterized by an increasing formal contamination, sometimes alien to the Italian context. In this view, I believe that is opportune to analyze the work of Gianfranco Caniggia, a student and assistant of Muratori, who tried to revitalize the

typo-morphology tradition by proposing a revised reading of the theoretical work done by his mentor. However, Caniggia's work, mainly produced during the early 70s and 80s, was entirely obfuscated by the theories and writings of Aldo Rossi, Giorgio Grassi, Vittorio Gregotti and Carlo Aymonino. In addition, Caniggia's practice has been very hard to analyze since he only produced a few books, most of which in collaboration with Gian Luigi Maffei, with only one published in English.²⁸⁰

It is important to begin from his first experimental work, *Lettura di una Città: Como*, a monographic analysis on the historical center of Como, a city 30 miles north of Milan.

*The discipline of architecture and planning in Italy is going through a period of darkness because we can't understand the structure of our historical centers.*²⁸¹

Caniggia's statement is very clear, yet it also deploys another question based on the duality of the planning discipline stuck between either the preservation of historical centers and the design of new peripheral areas. Therefore, the main issue becomes the understanding of the "old" in relation to the "new." Caniggia believes that this dualism starts immediately when new expansions are designed in opposition to the old historical centers. This diversification is largely due to a number of factors. First and foremost, Italian cities have gone through five centuries of non-existing changes, precisely from the 14th century to the 19th century. At the beginning of 1800, this static idiosyncrasy

²⁸⁰ See Giancarlo Caniggia, Gian Luigi Maffei, *Architectural Composition and Building Typology: Interpreting Basic Buildings*, (Firenze: Alinea, 2001). The other important publication by Caniggia is titled: Gianfranco Caniggia, *Ragionamenti di Tipologia*, (Firenze: Alinea, 1997).

²⁸¹ Gianfranco Caniggia, *Ragionamenti di Tipologia*, (Firenze: Alinea, 1997), 13.

exploded under the pressure of new establishments necessary to the economic growth of the city.²⁸²

The basic problem was that old buildings had to be readapted to house new functional necessities, while historical centers had to be de-crowded. Therefore, as a consequence of such a two-folded situation, the planning of the city became mainly concerned with issues of growth management and urban infill, which in some instances produced uneven developments of fringe areas between the spontaneous city (the center) and the planned city (the periphery). Caniggia's work positioned itself in a cultural context that had disregarded the importance of historical urban tissues and that had found itself stuck between planning and conservation. Thus, Caniggia broke away from socioeconomic and statistical tools as well as from tectonic issues pertaining the understanding the construction logic of historical buildings, creating a differentiated version of what Muratori had called "operational historical building typology" as an attempt to identify the predominant character of certain building types.²⁸³

Caniggia's approach began during the 50s when he was assisting Saverio Muratori with the course of *Carattere Distributivo degli Edifici*. This method was based on the recognition of building types at architectural scale through the identification of distributive characters of ground plans and open spaces within buildings (cloister and courtyards) as element of catalysis. However, while Muratori used this approach to facilitate a planning ex-novo, Caniggia applied it as praxis of urban renewal in what he called processual typology, a prelude to the renewal plan. This procedure was used to

²⁸² Ibid, 23.

²⁸³ Ibid, 47.

understand processual developments overtime, and also to understand changes that had occurred in relation to typological variations. By retrieving the archaic structure of the city and its first buildings, Caniggia created a generative planning process as prelude to future developments. Caniggia uses urban examples found in Como, Florence, Naples and Rome, and all these cases show a strong historical background found in the existence, justified by a collection of typological diagrams, of generative types, which in this case was the Roman *domus*.²⁸⁴ Consequently, in a phase of urban renewal, it is important to identify foundation types in order to derive alternative and more contemporary solutions. Recurrent types found in Como such as the courtyard house, or the courtyard row house are considered an evolution of the Roman *domus* that can be observed in Pompeii or in the Roman forum. How does such an evolutionary model keep regenerating? According to Caniggia, the act of dwelling differs from urban to rural areas. This peculiarity might also explain why certain types evolve differently, and clearly urban density could be seen as the main reason why the roman *domus* model has developed vertically in Naples and also in Florence and Rome. Thus, Caniggia's model of operation facilitates a reading of the city and the consequent production of planning strategies by simply understanding the structure of leading types and their inner distributive structure.²⁸⁵

But again, in order to completely understand the mechanisms beyond this methodological approach and its ideological premises, we need to head back to the IUAV in Venice, most specifically during the academic year 1963-64, and further

²⁸⁴ Ibid, 75.

²⁸⁵ Ibid, 110.

deconstruct the pedagogy developed in the course *Caratteri Distributivi degli Edifici* by both Aymonino and Rossi, which was formalized and explained in three different readers published by CLUVA, the Cooperativa Libreria Universitaria di Architettura (Cooperative Bookstore for the School of Architecture).²⁸⁶

CLUVA and CLUP Readers on Typology and Morphology

In 1963, Aldo Rossi had accepted to be Carlo Aymonino's assistant for the course in *Caratteri Distributivi degli Edifici* at the Institute in Venice; we also know that there had been an increasing and newfound interest in the relationship between function and urban form, and essentially between typological formations, intended as the inner structure of the city, and the morphology of the plan. Yet, concepts such as typology and morphology were somehow controversial as they implied a certain design sterility based on the repetition of specific building types, which sometimes are not entirely responsive to social and cultural contexts.

However, both Rossi and Aymonino organized their didactic sections with a particular methodological framework based on the recognition of a theoretical proposition that would address the definition and formation of the concept of building typology according to specific urban contexts. In a way, Rossi and Aymonino proposed the use of typological study as an innovative and autonomous way to isolate architecture

²⁸⁶ Again, those readers are: AA.VV., *Aspetti e Problemi della Tipologia Edilizia*, (Venezia: CLUVA, 1964); AA.VV., *La Formazione del Concetto di Tipologia Edilizia*, (Venezia: CLUVA, 1965); AA.VV., *Rapporti tra la Morfologia Urbana e la Tipologia Edilizia*, (Venezia: CLUVA, 1966).

from any technocratic or multidisciplinary approach. Building types, classifiable in specific typologies, were now understood as generative proponents that bridge across architecture, planning and history.²⁸⁷

A clear definition of the word type, as it applies to architecture, is quite complicated because of contextual and social components. In fact, the idea of classification, as well as the presence of particular types within this process, is strictly related to the way society manifest itself through form in particular historical times. The concept of type, very important within the work of *Tendenza*, is not to be understood as an image to copy or imitate, but it has to be comprehended as a significant component of a given contextual background.

Again, the principal observation at the basis of this doctoral work is that building types are the dominant material manifestations of the city, and they have been constantly and continuously integrated in the way the city forms itself overtime. Types are also defined by their function, and on the base of this peculiarity, they can be grouped and consequently studied through typological classification, which is understood as the method for reasoning and experimenting through types.²⁸⁸ Generally speaking, this process proposes a preliminary study based on particular precedents, and it proceeds via variations and differentiation in response to specific and demands and pressures.

²⁸⁷ Pier Vittorio Aureli, *The Project of Autonomy*, (New York: Princeton Architectural Press, 2008), 88.

²⁸⁸ Aldo Rossi, *L'Architettura della Città*, (Marsilio: Padova, 1966), 41. In Rossi's definition, "typology presents itself as the study of types of elements that cannot be further reduced, elements of a city as well as of an architecture...no type can be identified with only one form, even if all architectural forms are reducible to types."

According to this method, the historical continuity of architectural precedents, the repetition of a particular and recurrent distributive characteristic, as well as the differentiation of formal and morphological expression, are all very important to this understanding of the concept of type and typology.

Consequently, typology can become a method for reasoning and producing part of the city. In its etymologic sense, type is associated with this idea of permanent sign that signifies a specific trait or attribute; in its Latin denotation, however, type is understood as an original model, a prototype. For another definition more specific to architecture and urban planning, we have to look into the work of Antoine-Chrysostome Quatremère de Quincy (1755-1849) who, in his *Historic Dictionary of Architecture* defined the word type as:

*The word type represents not so much the image of a thing to be copied as the idea of an element that must itself serve as a rule for the model.... The model, understood in terms of the practical execution of art, is an object that must be repeated such as it is; type, on the contrary, is an object according to which one can conceive of works that do not resemble one another at all. Everything is precise and given in the model; everything is more or less vague in the type. Thus we see that the imitation of types involves nothing that feelings or spirit cannot recognize.*²⁸⁹

Now, both Rossi and Aymonino are well aware of this definition, which was revisited by Giulio Carlo Argan in *Il Progetto e Destino*, a book published in 1965 by Il Saggiatore in Milan. While analyzing Quatremère's definition, Argan emphasizes the concept of vagueness and indefiniteness, which it does not formally define the aesthetic

²⁸⁹ Silvia Lavin, *Quatremère de Quincy and the Invention of a Modern Language of Architecture*, (Cambridge, MA: MIT Press 1992), p 78.

qualities of an architectural object, but it influences its genesis and its generative process. Thus, a type is essentially born from an existing series of buildings, which are analogous in their formal and functional components; so, there are not new types, but only types culturally and historically embedded into specific cultural contexts.

Within this framework, the first and the second reader, *Aspetti e Problemi della Tipologia Edilizia* and *La Formazione del Concetto di Tipologia Edilizia* published in 1964 and 1965, summarized the cultural inclination and assumption regarding the course *Caratteri Distributivi degli Edifici*, which according to Carlo Aymonino, can not be exclusively based on a modernist and contemporary historiography of architecture; instead, it has to critically address history in order to propose new ideas and overcome rhetoric revivals. History and its continuity are intended, as already seen while analyzing the legacy of Ernesto Rogers, as a historical awareness and search for a tendency that overcomes formalist approaches.²⁹⁰ Thus, Aymonino prefers focusing more on addressing issues of typological formations, which are determined by emerging events and moments that have shaped the city in a very particular way.²⁹¹ This process is underlined by an Enlightenment tendency whose Aymonino finds in the work of Boullée, Ledoux, and Durand, and most importantly in their unrealized work, which he considers formally original and innovative.²⁹² This historical reference is extremely important because it established methodological continuity with a tendency that had developed a formal and also functional understanding of specific building types in

²⁹⁰ Ernesto Rogers, "Continuità," in *Casabella-Continuità*, no.199, (December, 1953), 2

²⁹¹ AA.VV., *La Formazione del Concetto di Tipologia Edilizia*, (Venezia: CLUVA, 1965), 3.

²⁹² *Ibid.*, 3.

relation to their cultural and social context. Fundamentally, the production of new types remained consistent to the historical times, in which they became their formal expression.

Aymonino uses the example of Claude Nicholas Ledoux's design for the Stock Exchange of Chaux, which was analyzed and designed around the inner activities that should take place in such a building; yet, the program and its functions are also strictly related to the rest of the urban context.²⁹³ In a way, it is the urban placement of the Stock Exchange within the inner city of Chaux that defines its formal and morphological expression. Clearly, buildings are not understood as isolated objects; in their schematic developmental phase, they are placed within a very specific context that eventually manipulates their programmatic and formal characteristics. That is why a course such as *Caratteri Distributivi degli Edifici* is fundamental to an understanding of the concepts developed and analyzed by *Tendenza*, a quality that will be consistently recognized in most of the work exhibited at the XV Triennale of 1973 under the International Architecture Section organized and coordinated by Aldo Rossi in collaboration with Franco Raggi, Massimo Scolari, Rosaldo Bonicalzi, Gianni Braghieri, and Daniele Vitale. In Aymonino's methodological process, which was strongly implemented in his section of *Caratteri Distributivi degli Edifici*, the grasping of a programmatic datum becomes a primary objective that defines the character of a particular building type understood as an architectural organism, which is susceptible to changes.²⁹⁴ The role of the architect is to localize those changes, both programmatic and formal, in relation to

²⁹³ Ibid., 5.

²⁹⁴ Ibid., 6.

the urban, and also to isolate and define those patterns of variations or adaptations that can be applied to other possibilities or contexts. This process creates a model or prototype that can always be manipulated in its internal distributive characteristics, which consequently generates new morphological solutions.

It is now important to understand the concept of building types in relation to their residential scope. According to Aymonino, architecture has a very clear public purpose, which is found in its public and private utility, as well as in its preservation of public and social welfare.²⁹⁵ Within this framework, types and their classification according to specific functions are seen as an indispensable practice because they summarize the presence of definite solutions that have already addresses a particular contextual issue. Thus, and according to a clear rational-illuminist tendency seen most specifically in the work of J.N.L. Durand, building types have to be defined by three precise and pragmatic characteristics: they need to address a specific and unique issue that needs to be formalized in a very elementary and diagrammatic way (scheme); they need to be indifferent of aesthetic formalizations found within their urban proximities, essentially they don't need to be a representation or a copy of a nearby building, but they can relate to it analytically, meaning in their internal distribution (analogy of characters); they need to be autonomous of technocratic and political regulations as architectural types and prototypes are defined by specific formal propositions (autonomy). Types can be regulated by legislatures, but this directive does not need to be primary within the

²⁹⁵ Ibid., 7.

generative and design process.²⁹⁶ This method is also consistent to the practice of early modernism. If we analyze the work of Walter Gropius, Bruno Taut, J.J.P. Oud, and Alexander Klein, we can certainly recognize a functionalist agenda; however, their methodological outline is not entirely dedicated to the definition of the most convenient and economical way to build, but instead it is concerned with the relationship between the distributive characters of residences, and the urban components that define their spatial domains such as streets, piazzas, arcades, etc.²⁹⁷

Aldo Rossi, in his essay part of the first reader on typological aspects and issues, looks at a much larger scale, proposing the city as the foundation of a comprehensive study of the buildings' distributive and formal characteristics.²⁹⁸ Rossi points out that it is necessary to analyze the relationship between building typology and urban morphology, also understanding the relationship between them in order to recognize possibilities for new urban interventions. Again, urban morphology is defined as the study of the urban forms, while building typology is the study of urban types.²⁹⁹ Within this framework, it is opportune to identify the domain of those two binary components, which is defined by the city and its urban landscape intended as a repository of formal and distributive characteristics. This proponent generates two different approaches, as indicated by Aldo Rossi: one is related to an understanding of the city as a functional organism, while the other considers the city's spatial configuration within a given

²⁹⁶ Ibid., 10.

²⁹⁷ Ibid., 12.

²⁹⁸ AA.VV., *Aspetti e Problemi della Tipologia Edilizia*, (Venezia: CLUVA, 1964); also in Aldo Rossi, *Scritti Scelti sull'architettura e la città*, (Milano: Citta Studi Edizioni, 1995), 209.

²⁹⁹ Aldo Rossi, *Scritti Scelti sull'architettura e la città*, (Milano: Citta Studi Edizioni, 1995), 209.

region. Essentially, this model establishes a scalar relationship between political, social and cultural issues and those generative processes that define urban form. Thus, when we are dealing with a comprehensive concept such as urban morphology, we also have to understand that it is not just about studying or describing form, but it is about relating form to those political, social and cultural components listed above. According to Rossi, we can classify several types of morphological approaches: social morphology, economical morphology, demographic morphology and geographic morphology. Those approaches can seed vital information toward an understating of the city as a collection of diverse types that are also integrant part of the urban context.³⁰⁰

Rossi's investigation is also organized around three distinctive scales: the residential scale, the neighborhood scale, and the city scale, which is understood as a collection of the first two categories. While analyzing issues of residential scale, I believe that it is opportune to examine the nature of urban residences in their inner structure. Based on very specific landscape characteristics, typical of the Italian environment, residences can be assembled in blocks with open spaces surrounding, in blocks with direct proximity to the street and no open spaces, and in blocks with a courtyard within them.³⁰¹ The study of these three categories certainly proposes an opportunity for a better reading of the city's typological and historical mutations, which were a predominant factor in Saverio Muratori's study of Venice and Rome. Accordingly, it is also about defining the distributive structure of residential units, which, according to both Rossi and Aymonino, characterize a good portion of the city.

³⁰⁰ Ibid., 210.

³⁰¹ Ibid., 211.

This observation proposes a different approach, a social one, toward the design of housing types that keeps in considerations issues of transformation of the internal relationships between family members, as well as issues of appropriateness of wages.³⁰² Essentially, the study of internal and distributive characteristics of residential types, and their formalization into urban space, should be based on a better understanding of social proponents relevant to the modern family and their role in a capitalistic driven society. This is not entirely a behavioral question as the elaboration of specific types is not entirely consequential to social, cognitive and emotional factors, but it is necessary toward a categorization of new standards of living that are essentially addressed by changing residential prototypes used previously. As the social structure changes so does the container of it. Again, both Aymonino and Rossi recognize that the rapid industrialization of post war Italy has changed both its social and urban structure, a phenomena that includes the grouping of new functional zones around new centers of development.³⁰³ The importance of this collection of essays and other documents compiled into the typology and morphology readers published by CLUVA has to be comprehended in relation to a very specific historical and contextual happening, which was expressed in the previous chapter, and which underlined an extremely functionalistic and technocratic agenda in the redesign of the city plan.

With the financial boom of early 1960, the Italian architectural market had shifted from static to very dynamic, where residential housing was now seen as a commodity and not as a primary necessity anymore. This new perception ended up

³⁰² Ibid., 213.

³⁰³ Ibid., 215.

changing the inner distributive structure and articulation of specific residential types, and consequently their morphological implications within the city. Within this progressive environment, characterized by structural and social changes, architecture has to be seen as a collective and civic expression of society finalized to the design of a new condition more responsive to real problems, but also conscious of a certain aesthetic.³⁰⁴ Those are the major peculiarities that differentiate architecture from other forms of art or science, although architecture often borrows fundamental components from the arts and sciences in order to challenge itself and its theoretical and programmatic constituents. Yet, at the bases of such inquiry, there is a conscious necessity to reduce architecture to a classification of building types that can be analyzed and studied according to their distributive structure, although Rossi denies the functionalist agenda within his didactic.³⁰⁵ In fact, for Rossi, what truly matters is the specificity of certain building characters and not their distributive schemes, which don't have to be involved into the design process. Essentially, form does not follow function, according to Rossi. He also said:

*Ponetevi di fronte un edificio; voi lo conoscete attraverso una serie di caratteri che lo definiscono (stilistici, costruttivi, storico, distributivi) ma nessuno di quei caratteri al di fuori dell'opera concreta in cui non li sperimentiamo possiede una sua vita rispetto all'opera stessa. Certamente caratteri stilistici e costruttivi possiedono una loro autonomia e noi li rileviamo come principi di classificazione.*³⁰⁶

³⁰⁴ AA.VV., *Rapporti tra la Morfologia Urbana e la Tipologia Edilizia*, (Venezia: CLUVA, 1966), 70.

³⁰⁵ *Ibid.*, 72.

³⁰⁶ Place yourself in front of a building; you know it through a series of characteristics that defines it (stylistic, constructive, historic, and distributive), but none of those characteristics outside of the work that we don't experiment with owns a life of its own with respect to the work itself. Certainly, stylistic and constructive characters have their own autonomy and we understand them as principle of classification; (my translation), *Ibid.*, 72.

Thus, for Rossi, it is more appropriate to understand and study a building's own stylistic and constructive characters in relation to its distribution, which is intended as the study of its internal circulation patterns. Program, building tectonics, and form, cannot be separated; moreover, they need to be synchronically integrated in order to create a coherent building and most importantly, a coherent methodology. This is, in a nutshell, the theoretical and methodological direction taken by both Aldo Rossi and Carlo Aymonino within their didactic characterization of the course of *Caratteri Distributivi degli Edifici*, which educationally combined a theoretical research and an analytical design assignment.³⁰⁷

Besides the CLUVA's readers on typology and morphology, I believe that it is appropriate to mention another important collection of essays and lectures elaborated by a Milanese group of instructors, which included Aldo Rossi, Giorgio Grassi, Antonio Monestiroli, Marcello De Carli, Agostino Renna, and Giancarlo Motta, and that were a fundamental part of the pedagogy during the academic year 1968/69. Most of the essays compiled in this reader, which was titled *L'Analisi Urbana e la Progettazione Architettonica: contributi al dibattito e al lavoro di gruppo nell'anno accademico 1968/69*, are pertinent to the intellectual debate regarding methodological research in the urban field with particular emphasis on the socialist city. The reader itself is not a collection of random writings, but it is a repository of a clear and consistent methodological tendency that basically continues the propositions developed by Carlo

³⁰⁷ See Appendix B with extracts from the course of *Caratteri Distributivi degli Edifici*. Also in AA.VV., *La Formazione del Concetto di Tipologia Edilizia*, (Venezia: CLUVA, 1965), 94-102.

Aymonino and Aldo Rossi during their Venetian experience at the IUAV. In his preface to this collection of readings, Rossi states that:

*Il seminario di Luglio, a mio avviso, mostra il momento critico del lavoro collettivo del gruppo e impone un'ulteriore precisazione della tendenza e delle scelte. Queste emergono anche dai primi progetti che si vanno elaborando. La definizione di una tendenza, al di là di ogni sbrigativo manifesto, si deve comunque precisare attraverso i risultati di un complesso lavoro di ricerca.*³⁰⁸

Thus, this proposition involved the development of a certain criticality of the work produced, which, according to Rossi, was emblematic of a precise tendency that was not understood as a pretentious manifesto, but it was the result of a research-based process (*analisi*). This research-based process involved the explication of several important components that defined a specific tendency, all of which had emerged between 1967 and 1969. Those emerging elements included: the possibility for a rational and logic articulation of architecture based on an understanding of the so-called *fatti urbani*,³⁰⁹ the formation of a new autonomous discipline articulated around the principles of urban science, and the separation of the architectural process in preliminary analysis and design, where preliminary analysis generates that research background responsible for the development of generative and formal principles. According to Rossi:

³⁰⁸ Our seminar in July, in my opinion, shows the criticality of our collective work, and it imposes a further clarification of tendency and choices. These emerge from the first designs we are elaborating. The definition of a Tendenza, beyond hasty manifestos, should happen through the outcomes of a complex research work; (my translation), in Aldo Rossi, *L'Analisi Urbana e la Progettazione Architettonica: contributi al dibattito e al lavoro di gruppo nell'anno accademico 1968/69*, (Milano: CLUP, 1974), 8.

³⁰⁹ *Fatti urbani* is usually translated into English as “urban artifact.” See Aldo Rossi, *The Architecture of the City*, (Cambridge MA: The MIT Press, 1982), 22. For a more informative explanation regarding the etymology of *fatti urbani* see: Ayse Belgin Turan, “Production of a Discourse: Italian Neo-Rationalism as Case Study,” (Ph.D Dissertation, Cornell University, 1995), 86.

*La tendenza è dunque quella di individuare un campo di applicazione e una strumentazione di ricerca scientifica che usi fondamentalmente parametri formali.*³¹⁰

Rossi and his students applied this comprehensive methodology in several case studies in Milan, Pavia, and Alessandria, primarily as a way to try to identify and classify emergent and significant categories defined by monuments and residential housing units. Most of the theoretical background was characterized by a clear Marxist influence, which essentially explains the recurrent interest in residential typologies and their socio-cultural implications with architecture. In fact, the architecture of the city, in Rossi's mind, is also understood as the formal expression of those social classes that handle political power; but a Marxist approach minimizes the act of producing while it maximizes the importance of the individual, which is inseparably connected to society; thus, architecture has to be generated keeping in mind the individual's connection to society; architecture must serve the individual above all.³¹¹ This ideology is quite evident in Rossi's essay on the idea of socialist city, in which he historically underlines the constant presence of an ideological and political position that avoids moralistic preconceptions and private interests creating a sort of authenticity in terms of city form.³¹² The best example of this socialist and operaist³¹³ approach is identified in the

³¹⁰ The tendency is thus to identify a purpose as well as those instruments of scientific research which use formal parameters; (my translation), in Aldo Rossi, *L'Analisi Urbana e la Progettazione Architettonica: contributi al dibattito e al lavoro di gruppo nell'anno accademico 1968/69*, (Milano: CLUP, 1974), 11.

³¹¹ Aldo Rossi, *L'Analisi Urbana e la Progettazione Architettonica: contributi al dibattito e al lavoro di gruppo nell'anno accademico 1968/69*, (Milano: CLUP, 1974), 42

³¹² Ibid., 46.

³¹³ This analysis is characterized by an overview of the conditions of post industrial revolution cities, in which workers housing units were obsolete, and they did not have proper services and infrastructure. Rossi believes that the problem is typological, and that the architect should be

model of the German *Siedlung*, which, according to Rossi, represents the best attempt to solve residential issues within a complex and articulated urban system, and that also mediates instances of garden-city approach to the modernist and industrial agenda of the city. A good example of this model is represented by the *Dammerstock Siedlung*, an urban settlement design by Walter Gropius in Karlsruhe, which integrates residential and landscape components, offering plenty of open spaces in between the building blocks (Figure 22). Yet, this socialist approach was also important because it provided a framework independent of any capitalistic component, which, according to Rossi, could have contaminated the actual urban form, thus displaying an architectural product generated in a quite conventional manner.³¹⁴

Giorgio Grassi, in his essay *Il Rapporto Analisi Progetto*, tries to connect research to design to understand if research and analysis are effectively part of the design process. According to Grassi, architectural analysis has to provide not only a comprehensive module that deals with the formal expression of architecture, but also a technical framework that explains how to finalize a design concept. Thus, classification is understood as the method that connects the logic structure of architecture, building logic, to its organizational and methodological domain.³¹⁵ Therefore, compositional, intended as the diagrammatic and preliminary phase of design, and technological

able to understand this new social characterization of modern operaist living. Particularly, Operaismo refers to the glorification of the culture of the working class.

³¹⁴ Aldo Rossi, *L'Analisi Urbana e la Progettazione Architettonica: contributi al dibattito e al lavoro di gruppo nell'anno accademico 1968/69*, (Milano: CLUP, 1974), 12.

³¹⁵ Giorgio Grassi, "Il Rapporto Analisi Progetto," in Aldo Rossi, *L'Analisi Urbana e la Progettazione Architettonica: contributi al dibattito e al lavoro di gruppo nell'anno accademico 1968/69*, (Milano: CLUP, 1974), 65.

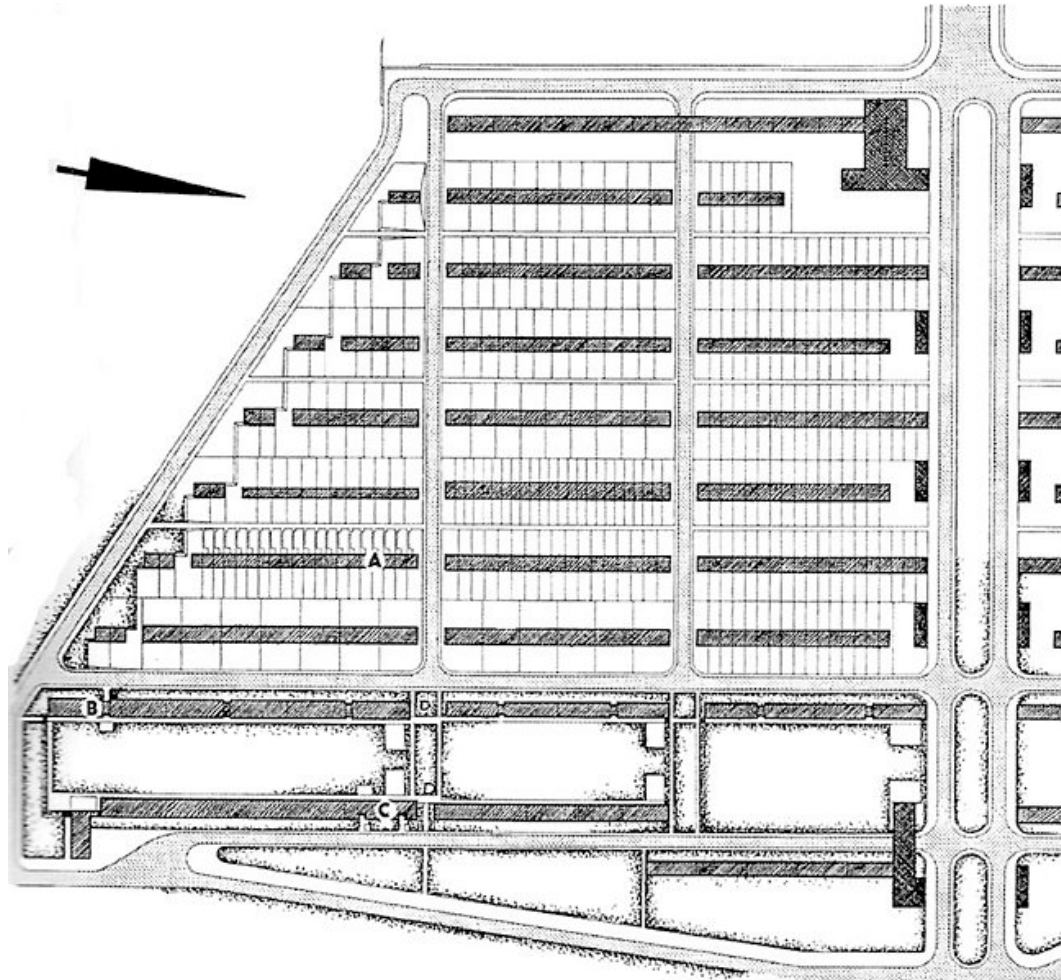


Figure 22. Walter Gropius, *Dammerstock Siedlung*, Karlsruhe, Germany, 1928. In Giorgio Grassi, *La Costruzione Logica dell'Architettura*, (Milan: Franco Angeli, 2008), 119. This site plan shows the relationship between residential units and open garden areas.

analysis has to develop a synchronic collaboration that underlines the building logic of architecture. To do so, according to Grassi, we need a manual that simplifies the choice of a clear theoretical approach that considers architecture a material practice defined by fixed elements that can be elucidated by an analysis of classification.³¹⁶ In fact, classification provides a way to isolate particular elements that can be analyzed in their singularity before they are brought back into the design process. Doors, walls, windows, streets, piazzas, courtyards, are all elements that participate in this compositive process, but in order to integrate them, we have to understand their individual disposition within a specific design problem. Additionally, Grassi looks at Laugier's *Primitive Hut*, which he appreciates for its simplicity and its formal honesty; this should be a constant characteristic of architectural production, as architects should also search for an elementary formal expression that links architecture to its original purpose.³¹⁷ This is really the recurring theme of Grassi's rational process, where architecture is understood as an autonomous discipline relative to its specific materials, principles, and techniques that address Laugier's primordial idea of architecture as a primitive shelter.³¹⁸

Hence, Rossi, Grassi and their Politecnico's students and colleagues had come to the conclusion that the study of the city and its parts is clearly and unmistakably fundamental to the creation of a method, a tendency that proposes a rational theory of architecture based on the relationship between urban analysis and the design of its resultant architectural artifact. It is important to observe that this correlation, according

³¹⁶ Ibid., 68.

³¹⁷ Ibid., 74.

³¹⁸ Ibid., 75.

to both Rossi and Grassi, is once again dictated by a rational approach characterized primarily by typological and morphological studies, a development, which precludes any arbitrariness of form; this tendency is mainly finalized toward the definition of the limits of architecture while avoiding standards and other reductive proponents. This predisposition is also characterized by a search for an architectural building logic that considers the importance of tectonic studies and the history of architecture.³¹⁹ Yet, history is not a mere collection of styles or formal explorations, but it has to be analytically understood in order to identify peculiar design elements as well as the underlying relationships between architecture and the city. The relationship between residential typology and urban morphology, the association of research (analysis) and design, the distributive and formal character of buildings, and the integration of Marxist principles into architecture and urban planning; all these components are essentially the backbone and major theoretical framework of *Tendenza*. Thus, the next chapter will show how those procedural propositions, defined by the methodological and theoretical practice of several noteworthy Italian architects, will account for the primary ideological premises of the International section of the XV Milan Triennale in 1973.

³¹⁹ Ibid., 14.

CHAPTER V

TENDENZA'S INTELLECTUAL PRODUCTION

*Nel rinnovato interesse teorico per i problemi della città, l'autore illumina il rapporto tra l'urbanistica e Teoria politica soffermandosi sulle enunciazioni della Teoria socialista relative all'assetto della società futura, e in particolare alla polemica tra i socialisti utopici e il socialismo scientifico.....e dove l'architettura abbia di nuovo una sua autonoma forma espressiva.*³²⁰

Guido Canella

Origini e Sviluppo della Città Moderna by Carlo Aymonino

The methodological discourse produced by *Tendenza*, mostly based on an understanding of the city as an urban artifact, was strongly characterized by a consistent and uninterrupted production of seminal work that will define future architectural production in Italy. Although both CLUVA and CLUP readers provided a good insight on a new academic didactic, there had not been a continuous and rational production of widely published work that could support the presence of a methodological tendency.

With the publication of *L'Urbanistica e l'Avvenire delle Città negli Stati Europei* in 1959, Giuseppe Samoná had finally offered a convincing overview on particular schematic propositions within the discipline of urban planning with regard of modern developments; yet, after Samoná's attempt to bring more interest on the relationship between architecture and urban studies, there had not been any major contributions with

³²⁰ In this renewed theoretical interest for the problems of the city, the author illuminates the relationship between urbanism and political theory focusing on statements made with regard to a theory of future socialist society, and in particular to the controversy between the socialist utopians and the scientific socialism.....and where architecture has finally its own autonomous formal expression; (my translation), in Guido Canella, "Prefazione," in Carlo Aymonino, *Origini e Sviluppo della Città Moderna*, (Venezia: Marsilio, 2009).

the exception of Rogers' editorials at *Casabella Continuità*, which, in a way, had tried to verify the significance of modernistic approaches to the Italian condition. As we have seen in the previous chapter, fundamentally, things started changing with the production of those typology and morphology readers at the IUAV in Venice and the Politecnico in Milan; so in 1965, as a result of a newfound analytical and research interest in the city and its components, Carlo Aymonino publishes *Origini e Sviluppo della Città Moderna* (Figure 23), a book edited by Marsilio, which will effectively triggers a chain reaction in terms of production of seminal work that will also generate the intellectual foundations and methodological framework of *Tendenza*.

Particularly, the book was born as a fundamental necessity to address some of the issues analyzed by Samoná in 1959, which included a study of processes of urban developments related to an increasing industrialization of the city and consequent rural migration toward it.³²¹ Essentially, Aymonino was interested in understanding how these issues affected the plan of the new city in its dimensioning and morphological integration with the old urban structure. This was not so peculiar to architecture in general, but it embodied other disciplinary fields such as economics, sociology, and urban geography. Clearly, when dealing with a complex organism such as the city, we have to address its complexity by looking at all those disciplines that contaminate the process of urban design; then, what becomes essential is this awareness that architecture,

³²¹ Carlo Aymonino, *Origini e Sviluppo della Città Moderna*, (Venezia: Marsilio, 2009), 3

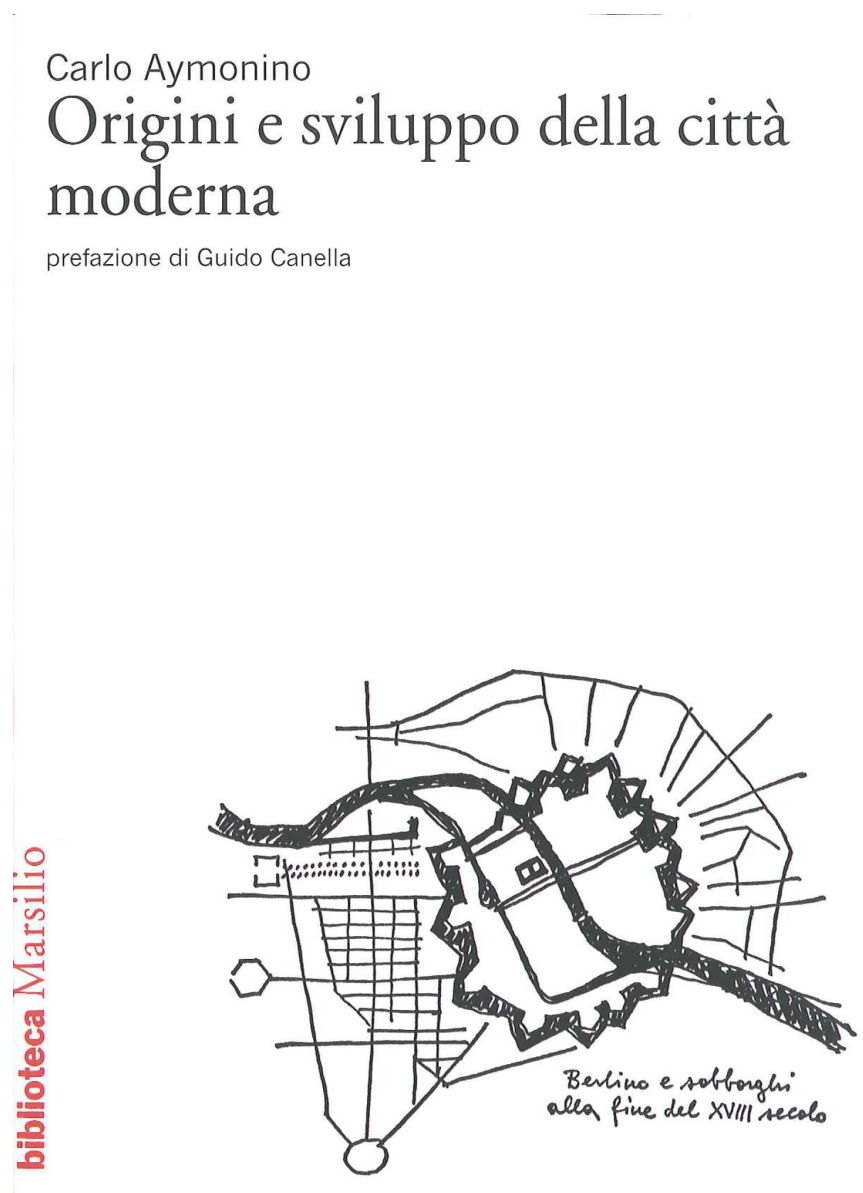


Figure 23. Carlo Aymonino, *Origini e Sviluppo della Città Moderna*. Venezia: Marsilio, 2009. Front cover of the new edition, republished in 2009, confirming a renewed interest in the theoretical and methodological discourse of *Tendenza*.

formally speaking, should function autonomously while addressing comprehensive design issues. Interdisciplinary approaches are perfectly fine as long as they do not manipulate the formal expression of the plan, which according to Carlo Aymonino should be instead generated by methodical typological and morphological studies.³²² This discourse is also particularly based on a new understanding of the city and its regional and metropolitan expressions, a characteristic that has produced new architectural products, partially consolidated by a centralized original condition that had been projected and forced into new suburban developments.

In order to rightly address this problem, Aymonino proposes a return to a type of historical and urban investigations which could underlined the development of specific urban phenomena; those phenomena provided important information about the formation of the industrial city and its political transition from a system dominated by merchants and aristocracy to one dominated by a capitalistic bourgeois.³²³ Clearly, in his research, Aymonino is looking at the work of Saverio Muratori, who had analyzed morphological and distributive changes of Rome and Venice's urban structure overtime, but, unlike Muratori, he was more interested in relating those typological changes to a more politicized agenda based on a strong Marxist view of society. Hence, there are strong political implications on the way cities change overtime, and according to Aymonino, a capitalistic society defined by industrialization and the consumption of goods represents the perfect expression of how a politically gentrified society can overtake the production

³²² Carlo Aymonino, *Origini e Sviluppo della Città Moderna*, (Venezia: Marsilio, 2009), 4; see also: AA.VV., *Aspetti e Problemi della Tipologia Edilizia*, (Venezia: CLUVA, 1964), 3.

³²³ Ibid., 4.

of urban form. Thus, it is not primarily about defining particular types that might comply with this socio-political process, which produces capitalistic or generic architecture, but it is about identifying, in the history of the city, those moments that have produced changes, both social and formal. The importance of those breaking points is essential to new possibilities because if we can localize what triggered specific changes, then we can propose an alternative model of urban growth that truly addresses societal and historical needs.³²⁴ Therefore, it is important to pay attention to issues of growth of the industrial city, which in Aymonino's work are tackled by a continuous Marxist framework that analyzed and clarified the relationship between capital, intended as money, and land ownership.

*L'analisi che Marx ed Engels compiono della società capitalistica ha il pregio di dimostrare che i problemi sono molto più complessi di quanto gli utopisti potessero immaginare; e che, soprattutto, e dall'individuazione delle contraddizioni interne alla stessa società che bisogna partire e far leva per prefigurare una società di tipo diverso.*³²⁵

While considering architectural models of communal living based, Aymonino looks into the work of Fourier and Owen, which is, generally speaking, defined by a form of utopian socialism that seeks changes not just for the proletarian working classes, but also for every individual.³²⁶ This reference to utopianism is important because it anticipates specific problems related to an increasing industrialization of the territory characterized by a rising disjunction between the center and its periphery. Within this

³²⁴ Ibid., 5.

³²⁵ Marx and Engels' analysis of capitalistic society is important because it shows that real problems are more complex than the utopists imagined; moreover, it is by localizing society's internal contradictions that we can prefigure a new society; (my translation), Ibid., 37.

³²⁶ Ibid., 11.

historical context, we know that factories were often placed outside old city centers, along new infrastructural networks, and they were often associated to a form of superseded residential housing, which did not provide all the services necessary for appropriate human living. Urban centers were basically saturated, while their outskirts, still rural, provided space for further developments.³²⁷ Yet, what happens when industrial and administrative components overtake parts of the saturated historical city? According to Aymonino, typologies start changing their initial functional definition, while the relationship city-countryside is ignored to the extents that every open space on the outskirts is seen as a possibility for further industrial developments. Consequently, roads became an extension of the historical city, while new cadastral subdivisions had been functionally arranged to address the necessity of more residential and industrial spaces.³²⁸

The new industrial city had reached a level of spatial development that included a more complex structure with new building types and new ways of communication; essentially, every open or unoccupied space could be built and developed, which confirmed the understanding of a capitalistically driven form of planning approach. Aymonino suggests that we look at alternative models; he proposes an analysis of the work of Tony Garnier's Industrial City, and Ivan Leonidov's plan for the socialist city of Magnitogorsk, which proposed models that both integrated rural and industrial developments. According to a strictly communist view, the elimination of the differences existing between country and urban areas, and basically between agriculture and

³²⁷ Ibid., 19.

³²⁸ Ibid., 22

industry was an ideological problem based on a conflict of interests among social classes.³²⁹ The integration of rural and speculative characteristics produces new results, mostly defined by a necessity to control peripheries with the implementation of functional strategies that end up producing isolated developments that lack any sort of integration with the inner core of the city.

Thus, Aymonino's *Origini e Sviluppo della Città Moderna* proposes an interesting overview on the origins and developments of the modern city, which has been characterized by uneven social and morphological developments. This major issue required architecture to be more autonomous and less political in its generative proponents. Essentially, a good and consistent plan of the city could only be possible if the architect, although conscious of social and political implications, analyzes the city according to its fixed typological elements such as residential housing units and particular monuments.

Aymonino will explore some of these concepts in *Il Significato delle Città*, a book published in 1975 that will expand on his ideas of residential typology and the relationship with urban morphology; but again, what appears to be very interesting is the facts that *Origini e Sviluppo della Città Moderna*, in a way, set up the premises for another important book, *L'Architettura della Città* by Aldo Rossi, which has defined the methodological practice of Rossi and his particular contribution to a tendency that will find its ultimate expression in the International section of the XV Milan Triennale.

³²⁹ Joseph Stalin, *Problemi Economici del Socialismo nell'URSS*, (Roma: Edizioni Rinascita, 1953), 36-38.

***L'Architettura della Città* by Aldo Rossi**

Rossi's seminal work on the architecture of the city is not completely unexpected, but it is rather the result of a complex matrix of methodological seminars and workshop that are finally formalized into a manual of architectural and urban theory. Yet, I believe that, before breaking down the methodological premises of Rossi's *L'Architettura della Città*, it is important to understand its historical positioning within a tendency that had been continuously developing in Italian architectural culture. Aldo Rossi was not the first of a generation of architects to be interested in a theory of the city. In fact, Ludovico Quaroni and Giuseppe Samoná, who both recognized the importance of urban studies for a more consistent architectural methodology, had already addressed the idea of city as a repository of architectural types.³³⁰ Furthermore, Rossi had actively participated to the academic didactic established by both Samoná and Quaroni, and to the editorial board assembled by Ernesto Rogers at *Casabella Continuità*. Rossi also served as Carlo Aymonino's teaching assistant in the course of *Caratteri Distributivi degli Edifici* while at IUAV, and as a researcher at the ILSES, the Institute of for the Economic and Social Studies in Lombardy.³³¹ I believe that it is quite evident how those intellectual collaborations ended up having a lasting impact on Rossi's personal view and introspection on architecture, which will be successively formalized into his major theoretical and intellectual work, *L'Architettura della Città*, published for the first time in 1966 by Marsilio Editori, an editorial group administrated

³³⁰ See Giuseppe Samoná, *L'Urbanistica e l'Avvenire della Città negli Stati Europei*, (Roma: Laterza, 1985), and Ludovico Quaroni, *La Torre di Babele*, (Padova: Marsilio, 1967)

³³¹ Elisabetta Vasumi Roveri, *Aldo Rossi e L'Architettura della Città: Genesi e Fortuna di un Testo*, (Torino: Allemandi, 2010), 23.

by young entrepreneurs among which it is important to remember Paolo Ceccarelli, a close friend of Rossi.³³²

Nevertheless, I have to say that my personal understanding of *L'Architettura della Città* is strictly defined by its original Italian version, which appears to be a little less tendentious and ambiguous because of some translation issues.³³³ The book was idealized as a critical view of the modernist and factionalist approach to the design of the modern city while trying to understand the logical structure of it and its architectural expression. In Rossi's words:

*Per architettura della città si possono intendere due aspetti diversi; nel primo caso è possibile assimilare la città ad un grande manufatto, un opera di ingegneria e di architettura, più o meno grande, più o meno complesso, che cresce nel tempo; nel secondo caso, possiamo riferirci a degli intorni più limitati dell'intera città, a dei fatti urbani caratterizzati da una loro architettura e quindi da una loro forma.*³³⁴

Therefore, the city is both an architectural object, and a collection of *fatti urbani*,³³⁵ (or *fait urbain* as explicated by Marcel Poëte in his seminal work *An Introduction to Urbanism: The Historical City*) which propose their own particular

³³² Ibid., 24.

³³³ Most of the problems with the English version of Aldo Rossi's book are due to translation problems. Terms such as *fatti urbani*, *tipi emergenti*, and *manufatto urbano* are usually interpreted differently. In my work, I will refer to them by using their Italian versions, and I will also provide a short literal and architectural description of their meanings in relation to a specific cultural context.

³³⁴ The architecture of the city can be understood in two different ways; in its first way it is possible to assimilate the city to a great artifact, a work of engineering and architecture, more or less big, and more or less complex which grows overtime; in its second interpretation, we can refer to the more limited city's domains, and the urban events (*fatti urbani*) which are characterized by their own architecture and form; (my translation). In: Aldo Rossi, *L'Architettura della Città*, (Torino: CittàStudi, 2004), 21.

³³⁵ *Fatti urbani* will be translated as "urban events," a term which, according to my understanding, includes both a material (building as an artifact) and a factual (a particular historical occurrence) significance. The word "artifact" won't be used as it only implies a sense of materiality that is not directly related to any particular historical or urban event (*fatto*).

formal expression.³³⁶ Yet, the city is also understood as the product of an incessant process where memories overlap with architecture and vice versa; certain events have defined the relevance and significance of particular buildings overtime, a mnemonic device that visually relates historical complexity to material expressions of it (buildings). The city is then an accumulation of these events, and as such, it can be analyzed by dissecting those occurrences that show discontinuities and anomalies with the rest of the plan. Just like Michel Foucault's method, Rossi places more emphasis on points of ruptures (*fatti urbani*), which accordingly can embody important generative components that justify typological and morphological variations. Rossi's typological classification is not aimed to generalize the process of urban growth and redesign of the city, but instead it recognizes the presence of particular signs (types) that link past and present, life and society, and which revolve around monuments, here understood as static elements that embody collective and civic desire.

Yet, the structure of those urban events has to be precisely localized in order to avoid generic assessments specifically based on formal conclusions; Rossi uses the example of the *Palazzo della Regione* in Padua to show how an artifact, originally designed as a residence, is now used in a different manner as it functions as an office building. This characteristic shows that, although function can be independent of form, form is still understood according to its timeless resiliency, which is properly defined by a particular collective and civic agent.³³⁷ Those agents are specific to an individual set

³³⁶ Marcel Poëte, *Introduction à l'urbanisme. L'évolution des villes, la leçon de l'antiquité*, (Paris: Boivin & Cie, 1929).

³³⁷ Aldo Rossi, *L'Architettura della Città*, (Torino: CittàStudi, 2004), 22.

of experiences, and can be characterized by positive and negative connotations. Those connotations are an important component of an understanding of what Rossi calls *fatti urbani*, or urban events, which are consequently defined by the idea of individuality of a specific locus, and its mnemonic relevance. A building, intended as an urban event, is defined by definitive forms that can also be collected at a larger scale; thus, urban events define not only the character of the individual architectural object, but also the nature and, most specifically, the design of the city. Rossi's studies are essentially defined by the study of form as it relates to urban events that have to be observed in their entire structural connotation that is social, political, and civic. Morphology, which is the study of form, becomes the expression of those structural connotations inherent particular urban events that have to be understood as comprehensive driving elements of form.

The individuality of the architectural object is not important, but it is analyzed in a larger context that consequently makes it more relevant to complex systems, and that also explains the emergence of specific buildings that assume significant artistic and civic connotations. Yet, the city is still organized around architectural types, which according to Rossi are constituted by functional and aesthetical aspirations he finds in the work of Milizia who affirmed that the success of a building was characterized by its form, and the distribution of its parts.³³⁸ Typology is, as we know, the study of types that can't be formally reduced anymore; essentially, it is the singularity of architecture. Within this framework, the architect becomes the subject responsible for an unambiguous definition of the primary elements of study since types can easily be

³³⁸ Ibid., 31-32.

reduced to an overgeneralization of the design process based on generic solutions not always related to the specificity of the context.³³⁹

The city is a heterogeneous architectural artifact, and as such, it has to be analyzed by isolating its congruent parts; again, those parts can be classified according to specific types and other processes of transformation, and even though the components are formally and socially diverse, the city itself remains cohesively articulated. While identifying specific permanent points, Rossi uses history and its narrative as a way to study how particular events have defined the development and formal layout of the plan.³⁴⁰ Those significant events are usually formalized in what we call monuments, which tend to guide the principles of urban growth because they can also change their functional and programmatic scope. Again, the *Palazzo della Regione* in Padua and the amphitheater in Arles are good examples of how an urban event has retained its formal significance while changing, partially, its original functional purpose (Figure 24). This is one of those primary elements that Rossi wants to analyze because, formally speaking, they have been consistent overtime also becoming important points of morphological aggregation.³⁴¹ The *Palazzo* has to be understood as a primary urban attractor and as a point of catalysis for future developments that can consequently alter the perception and the structure of the city. The presence of particular architectural singularities is often related to a significant event in time; the event can be political, social, religious, and it can also be associated to an image and the rituals of iconography. Yet, in order to be able

³³⁹ Ibid., 34.

³⁴⁰ Ibid., 69.

³⁴¹ Ibid., 193.

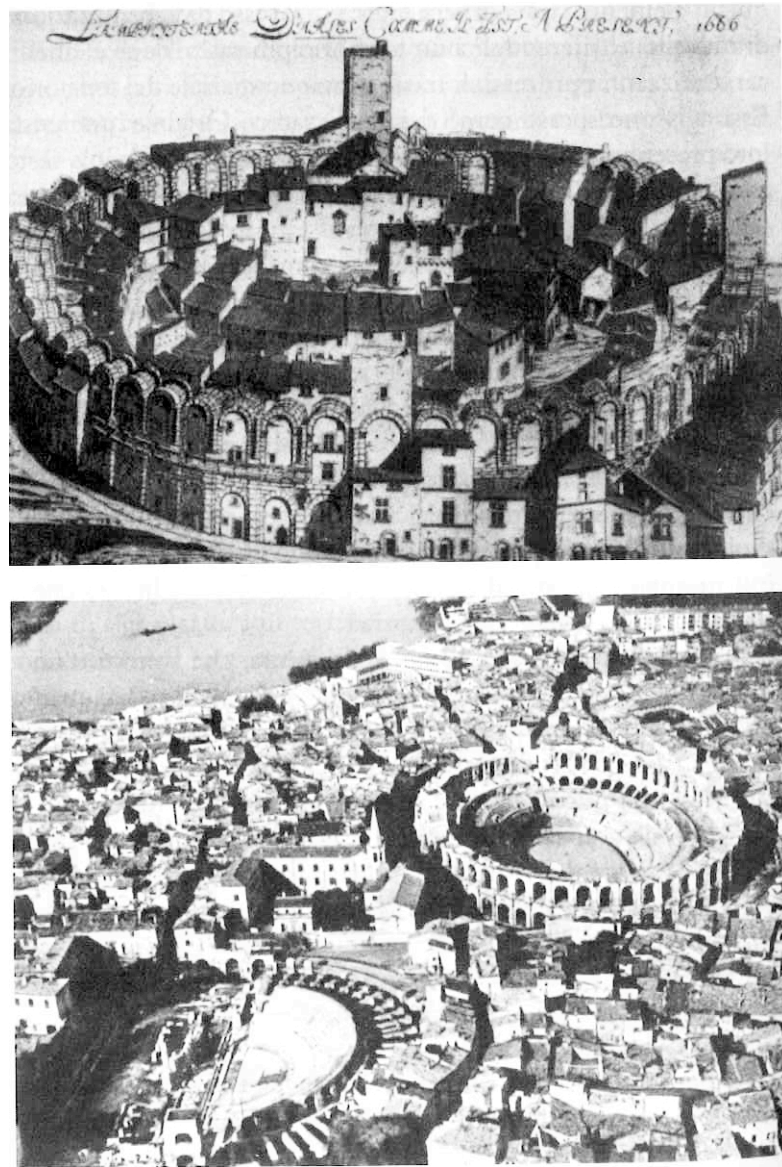


Figure 24. Arles Amphitheater, in Aldo Rossi, *L'Architettura dell Città*. Torino: CittàStudi, 2004, 108. The photo shows the influence of the Roman amphitheater on the morphological developments of the town.

to understand the relationship between primary urban attractors and human collectiveness, we have to recognize history in its social connotations; thus the history of architecture is not only the history of stylistic progression, but it is also the chronicle of civic and social interactions and how those have found a certain formal expression, which has been consolidated overtime by a collective will.³⁴² The city as an archeological collection of artifact and events presents a readability that is expressed in the particular recurrence of building types and monuments. Again, the city as a whole is characterized by heterogeneous parts, and it is only by applying a rational methodology that we can link those parts to the whole. This process is accomplished by looking at typological formations and more specifically to urban events. Rossi, protesting against what he calls naïve functionalism,³⁴³ sets the historical production of architecture as the measure of architecture, a system that understand the presence of archetypes, which, in their singularity, contain the information necessary to produce rational form. Those archetypes, or we could call them urban events (*fatti urbani*), have a precise internal structure, which is both civic and collective; fundamentally, in order to be able to rationalize and express this building logic, we have to understand that the city is a repository of architectures that have to be methodically analyzed and broken down according to a particular process that involves the recognition, definition, and evaluative analysis if those urban events relevant to the scope of research.

Yet, Rossi's book *L'Architettura della Città* has been widely published and analyzed, therefore, I decided to undertake an investigation more focused on the idea and

³⁴² Ibid., 148-149.

³⁴³ Ibid., 35-36.

meaning of *fatti urbani*. The books' contribution to a rational tendency is underlined by its definitive project; in fact, it was Rossi's major intention and ambition the completion of a sort of treatise or manual that would compile all the information necessary to understand the discipline of architecture and its internal norms. The necessity to apply a logical process to a field so complex was a peculiarity necessary for the formation of a methodological discourse. For Rossi, a rational architect is the one who continuously tests and validates his theoretical framework by producing building according to specific operative principles. This obsessive practice will be at the basis of what Rossi calls *Razionalismo Esaltato*,³⁴⁴ a type of rationality that is fanatic in its obsession for the search of a building logic aware of realistic architectural problematics, a thematic that will be addressed by Giorgio Grassi in his famous book *La Costruzione Logica dell'Architettura*, published a year after Rossi's book in 1967.

***La Costruzione Logica Dell'Architettura* by Giorgio Grassi**

Like Aldo Rossi, Giorgio Grassi was very familiar to the methodological framework developed by Ernesto Rogers at *Casabella Continuità*. Grassi graduated from the *Politecnico* of Milan in 1960, a year after Rossi; in 1961, he became a key member of the editorial staff at *Casabella Continuità* until 1964, this is when Rogers had to leave the magazine forced by the political demands of the Luigi Bellini of the democratic party, who turned the magazine to Gian Antonio Bernasconi. During his tenure at Casabella, Grassi immediately shows a non-conformist attitude critical of conventional mainstream architecture. His early articles are based on a critical reading of Tange's

³⁴⁴ Aldo Rossi, *Scritti Scelti sull'architettura e la città*, (Milano: Citta Studi, 1997), 347.

Tokyo's Plan, and Berlage's work in Amsterdam, which are both analyzed in terms of their layouts and conformation of parts of the cities through specific architectural interventions,³⁴⁵ an important peculiarity for a better understanding of the work of Grassi which is always and constantly framed by an indivisible logic. Moreover, Grassi shows a particular interests toward the ideas and work of German Protorationalist architects Ludwig Hilberseimer and Heinrich Tessenow, who, according to the same Grassi, had developed an interesting process of formal recognition based on austerity and simplicity; this investigation was essentially defined by a reduction of form to the most geometric elementary shapes, which represent the basis of architectural composition.³⁴⁶ There is thus an increasing interest in defining those fundamental design principles that could consolidate an ongoing discourse, a tendency based on the understanding and complexity of the city and its embodied relationship between analysis and design. After the first studies and methodological explorations of the early 60s, Grassi, as well as Aymonino and Rossi, feels the necessity to overcome a recurring processual anxiety, typical of the young generation of architects, by putting together manuals that would explain their line of work, and that would reinforce the idea of an architecture based on fundamental principles and rules required toward the definition a methodology defined by formal clarity and typological analysis.

³⁴⁵ See also: Giorgio Grassi, "Un Architetto ed una città," *Casabella Continuità*, n.249, (March 1961); Giorgio Grassi, "La città come prestazione vitale," *Casabella Continuità*, n.258, (December, 1961); Giorgio Grassi, "Parigi e la regione parigina," *Casabella Continuità*, n. 261, (March 1962).

³⁴⁶ Jose Lahuerta, "Un saggio tra appendici, e un epilogo," in Giorgio Grassi, *Opere e Progetti*, Milano: Electa, 2004), 8.

As a result, *La Costruzione Logica dell' Architettura* was published in 1967 with the intent to set up a rational framework based on the exigency of generality that would address a formal theory of architecture. The critique of interdisciplinary remedies is highly emphasized in his introduction. Grassi sees architecture as the sum of all architecture of the past; therefore, its prerogatives have to be found within its disciplinary domain. Architecture is also understood as a discipline where theory merges with practice in a sort of analytical process where its rules are defined by architecture's inner logic, which is extremely evident in its building phase.³⁴⁷ Architecture has to be understood as the product of a fabrication process, which involves a historical and material awareness absolutely free of any sort of formal ambiguity. Formal expression has to be contained to the basic premises of architecture, which were early defined by the French Neoclassical architects where formal ambiguity was not seen as a programmatic necessity for idiosyncrasies.³⁴⁸ Within this framework, Grassi describes and proposes certain theoretical and technical systems of investigation based on analytical data collected from what we have defined as analysis or research. This process generates a catalog of processual techniques that can be identified in particular buildings, and that can be systematically analyzed in order to discover a general programmatic methodology.

³⁴⁷ Giorgio Grassi, *La Costruzione Logica dell'Architettura*, (Milano: Franco Angeli, 2008), 15.

³⁴⁸ Ibid., 16.

*Il filone di pensiero a cui mi riferisco è quello del razionalismo. E dirò subito che qui intendo designare col termine razionalismo un determinato atteggiamento di pensiero.*³⁴⁹

Thus, Grassi refers to the term rationalism, which has a very ambiguous meaning when applied to architecture. First and foremost, a rational methodology is strictly connected to an understanding of the term *architetti della ragione*, or architects of the reason, such as Boullée, Ledoux, and Durand who tried to synthesize new formal solutions by combining old elementary forms; fundamentally, their work was not close to be identified as part of a rational or unitary methodological production, although it expressed an architectural possibility defined by a historical analysis. In fact, this component had to be evaluated by taking a specific building and consequently analyzing its system of internal organization that could be readjusted according to contextual parameters, and that would change the formal expression of it. The architecture produced was not rational in its stylistic disposition, while its procedural approach was certainly the result of a process of logical recognition of those significant types. The architects of the reason were the proponents of a methodological system based on the meaning of historical and typological significance. In this context, Grassi defines rationalism as a particular attitude of thought that precedes and guides the methodological design choice.³⁵⁰

³⁴⁹ The line of thought to which I refer is that of Rationalism. And I will say right away that I intend to designate the term Rationalism as a particular processual attitude; (my translation), *Ibid.*, 21.

³⁵⁰ *Ibid.*, 23.

Hence, there is not a stylistic reduction of architecture, but only a methodological classification that reflects a procedural analysis; it is wrong to label a building or any piece of architecture rational because of its aesthetics. Grassi emphasizes this concept by looking at theoretical frameworks that underline the importance and absoluteness of reason above all, even above form, a necessity generated by this anxiety of certainty, an innate desire to locate fixed design variables that can set as methodological rules.³⁵¹ It is essentially a deductive way of producing a system that demarcates the domain of architecture, or what Grassi calls the “limits of architecture.”³⁵² When the domain has been defined, it is necessary to produce those rules and norms that govern the choices available in order to generate the variables necessary.

*L'architettura sono le architetture, non c'è quindi Teoria dell'architettura che non sia anche nell'esperienza dell'architettura...il progetto non può essere tautologia rispetto l'esperienza della storia.*³⁵³

The rules have to be found within the discipline of architecture, which is understood as autonomous in its forms and techniques, yet it cannot be tautological and thus repetitive of a historical condition that has clearly changed overtime time. This is unmistakably true when Grassi looks at significant form; we cannot propose identical architectural expressions, but we have to strive for a process that shows analogous methodological guidelines. Again, the best approach toward this rationalist direction is

³⁵¹ Ibid., 25.

³⁵² See, Giorgio Grassi, “The Limits of Architecture,” *AD profile 41: Classicism is not a Style*, vol.52, n.5/6 (London: Academy Editions, 1982), 43-49.

³⁵³ Architecture is the architectures, so there is no theory of architecture that is not embodied into the experience of architecture....design can not be tautological with respect to the experience of history; (my translation), in Giorgio Grassi, *La Costruzione Logica dell'Architettura*, (Milano: Franco Angeli, 2008), 83.

characterized by typological description and classification that defines the objectives of architectural analysis; thus, I believe that it is necessary to clarify the meaning of this process in order to comprehend the uses of it in a different context. Grassi defines the process of description and classification as a preliminary way to recognize common traits or characteristics that are the expression of determinate technical and formal choices. This process is implemented to compare and contrast a specific object and its internal qualities with the scope to assimilate and underline them in a diagrammatic way, which is immediately intelligible and applicable.³⁵⁴

Consequently, simplification is attained in order to increase architecture's disclosure of its regulatory system. It is, in essence, a didactic way to undress architecture of any rhetorical and abstract meaning, exposing its bare foundations of compositive rules and norms. What we can express formally should be expressed clearly. Thus, a process of classification is necessary, not so much as a catalogue of formal solutions, but as a method that exposes particular generative rules. It is not a point of arrival, but it is a point of departure of the design process. It is also a limit in a way that forms have already been set up for a particular building type, although variations are possible.³⁵⁵ For instance, if an office building has shown, through a process of typological analysis, that a specific form seemed to be the most appropriate as it repeated overtime, than looking for a diversity of form would be uncalled for; yet, within this framework, we can still take the original form we have uncovered from our

³⁵⁴ Giorgio Grassi, *La Costruzione Logica dell'Architettura*, (Milano: Franco Angeli, 2008), 50-55.

³⁵⁵ Giorgio Grassi, *L'Architettura come Mestiere ed altri Scritti*, (Milano: Franco Angeli, 1992).

analytical process and manipulate it, thus generating new by use of the original. Grassi is not interested in extreme formalism; but also, he is not an advocate of a pragmatic professional approach that had been characterizing Italian architecture during the early 60s. In fact, Grassi states that:

*I am not interested in professionalism since it represents the adhesion of the city to capitalism; I am interested about those experiences within the city that refuse the city itself and its capitalistic structure. I believe that this juxtaposition can't be solved by repeatedly using a certain formalistic approach. This extreme experimentalism must terminate. There is too much will to art.*³⁵⁶

Interestingly, Grassi distances himself from a simplistic approach, although he is also advocating for straightforwardness of design methodology; in these regards, he accentuates Quatremère de Quincy's definition of type as:

*The word type represents not so much the image of a thing to be copied as the idea of an element that must itself serve as a rule for the model.... The model, understood in terms of the practical execution of art, is an object that must be repeated such as it is; type, on the contrary, is an object according to which one can conceive of works that do not resemble one another at all. Everything is precise and given in the model; everything is more or less vague in the type. Thus we see that the imitation of types involves nothing that feelings or spirit cannot recognize.*³⁵⁷

It becomes interesting to note that, according to Grassi, types can become conceptual tools that identify the connections between new and old. While looking at Alexander Klein's research work on the most favorable dimensions for particular floor plan types, it is important to understand the relationship, both formal and functional,

³⁵⁶ Giorgio Grassi, *Scritti Scelti*, (Torino: Franco Angeli, 1999), 176.

³⁵⁷ Silvia Lavin, *Quatremère de Quincy and the Invention of a Modern Language of Architecture* (Cambridge, MA: MIT Press 1992), p 78.

between different schemes, which are underlined by subtle variations (Figure 25). Similarly, Grassi refers to the work of Pierre Le Muet who, in his book *Manière de bait pour toutes sortes de personnes*, had analyzed how particular residential types change their architectural character according to their positioning on a parcel.³⁵⁸ Thus, plans, sections and elevations are used to show how cadastral conditions have altered urban and architectural form by allowing a specific typological solution to emerge and consolidate itself overtime (Figure 26).³⁵⁹ The most important characteristic of this analysis is in the simplification of a process that reduces residential types to simple diagrams that can be evaluated formally and functionally in their distributive characters.

This is a clear representation of a rational and logical methodology that, given a specific scenario, it proposes a specific solution responsive to real contextual conditions. Rationality is thus seen as a way to order architecture in its internal building logic by giving it a consistent structure. Grassi uses four different degrees of intentionality: transcription of the tectonic necessities that influence form; description of the typological variations due to technological and tectonic characters; representation of those changes through matrixes of classification; expression of an architectural reality governed by specific contextual conditions. In the end, Grassi's book becomes the quantifier of the architect's practice. Grassi's methodology will remain consistent over the years, proposing the importance of a process that evolves in a silent way without any extreme formalization.

³⁵⁸ Giorgio Grassi, *La Costruzione Logica dell'Architettura*, (Milano: Franco Angeli, 2008), 57.

³⁵⁹ Giorgio Grassi, *L'Architettura come Mestiere ed altri Scritti*, (Milano: Franco Angeli, 1992).

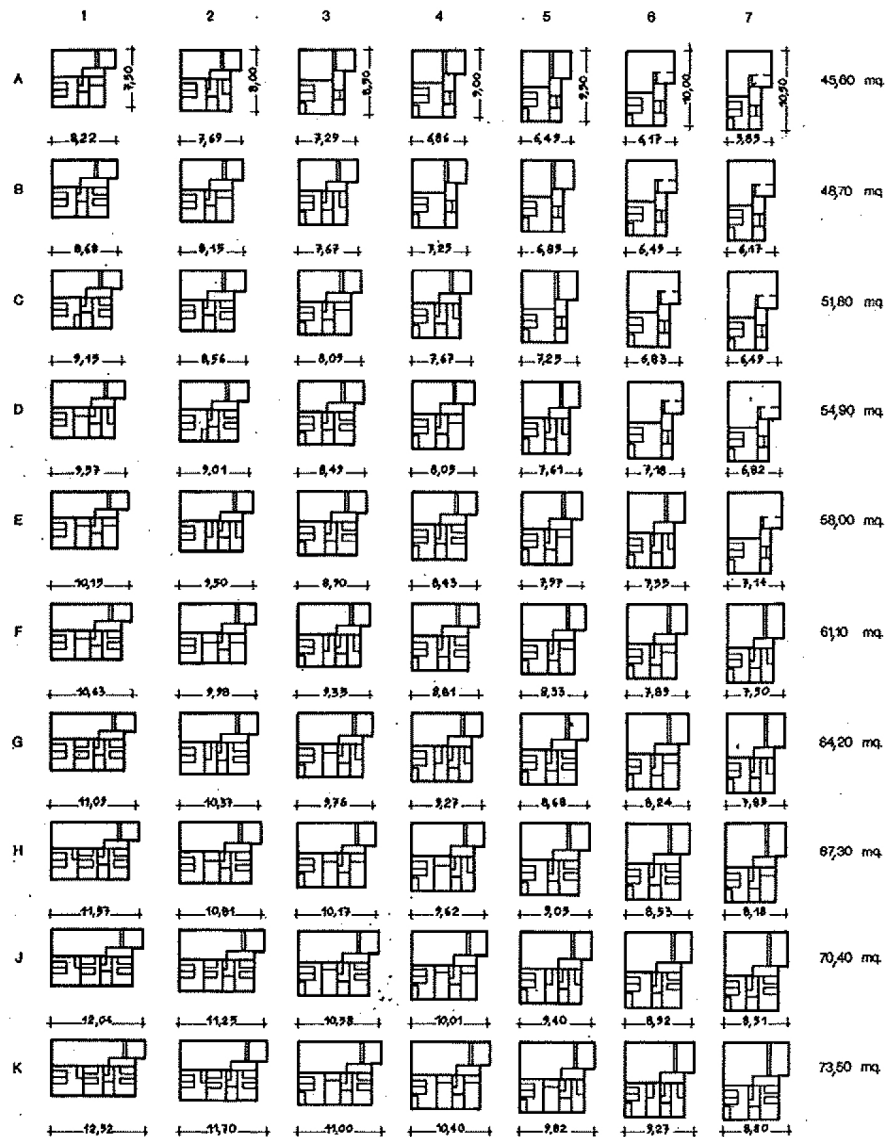


Figure 25. Alexander Klein: Studies for an optimal residential distribution. In Giorgio Grassi, *La Costruzione Logica dell'Architettura*, (Milano: Franco Angeli, 2008), 75. This matrix shows the relationship between variations of the same type. Classification is used to underline the main traits of each solution analyzed.



Figure 26. Pierre Le Muet: "The way to build for persons of every degree." In *La Costruzione Logica dell'Architettura*, (Milano: Franco Angeli, 2008), 75. Typological formations based on cadastral information can alter the architecture of a particular residential type.

By understanding his method, we should be able to look at the architectures of the past as a way to understand the building and compositive logic behind them, which should advocate for an autonomous methodology. Yet, it is not by replicating the past that we achieve autonomy, but it is by understanding its technicality and practicality that we will be able to achieve modernity and continuity. Materiality is always understood as a primary factor in Grassi's methodology, a peculiarity that allows him to delegitimize form.³⁶⁰ Again, Grassi's methodological process is based on the recognition of the limits of architecture and in the dichotomy between analysis and design process, which are understood as modes of cognition.³⁶¹ Yet, both are strictly related to this idea of architecture as a repository and collection of architectures. Grassi denies the utility of interdisciplinary solutions since those experiments are more focused on lateral explorations that end up distorting what Grassi calls "*form of reference*," which detaches architecture from the rest of its context.³⁶²

The methodological work of Grassi has to be seen in his didactic and pedagogical sense; although Grassi's buildings have proven to be somehow austere and rigorous,³⁶³ his method has been characterized by a coherent recognition of architecture's own norms and rules. His interest in rationality and typological studies, intended as a diagrammatic processes of schematic simplification, will be another one of those components that will

³⁶⁰ Giorgio Grassi, *L'Architettura come Mestiere ed altri Scritti*, (Milano: Franco Angeli, 1992).

³⁶¹ *Ibid.*, 12.

³⁶² Giorgio Grassi, *Scritti Scelti*, (Torino: Franco Angeli, 1999), 177.

³⁶³ See Kenneth Frampton, "Giorgio Grassi a Sagunto," in *Domus*, n.756, (Milano, January 1990), 19-22.

define the heterogeneous methodological work of *Tendenza* and which will characterize most of the work exhibited at the XV Milan Triennale of 1973.

The Consolidation of a Method and Other Writings

The research and work undertaken by Aymonino, Rossi and Grassi had triggered a newfound interest in analytical design methods based on a rational understanding of the city and its architectural components. This interest will be characterized by an extremely consistent production of other seminal works that will contribute to what I here call the consolidation of a method, again a rational method based on a logical understanding of architecture's inner rules. Thus, at this point, we know that Carlo Aymonino had published his book *Origini e Sviluppo della Città Moderna* in 1965, Rossi had published *L'Architettura della Città* in 1966, while Grassi's *La Costruzione Logica* came out in 1967. Yet, although those three books established a cultural and intellectual framework toward a common architectural tendency, we cannot forget to mention other architects and publications that contributed to the consolidation of a coherent discourse.

Within this optic, the work of Vittorio Gregotti is quite interesting because, even though he was part of the editorial staff of *Casabella Continuità* under Ernesto Rogers, he never accepted the premises of a common tendency. Generationally speaking, Gregotti did not belong to the so-called group of the *giovani delle colonne*, as he was essentially older than everybody else, and he had already established a significant role in the architectural cultural debate of the late 50s. In fact, Gregotti, who had graduated in

1952 under the academic supervision of Ernesto Rogers, had already participated in CIAM 8 in Hoddesdon, England, and he had also collaborated with Studio B.B.P.R. to the IX Milan Triennale of 1952. In 1953, he begins his collaboration with *Casabella Continuità*, while he is also Rogers' teaching assistant for the course *Caratteri Stilistici e Architettonici* at the Politecnico in Milan; essentially, he tutored students such as Aldo Rossi, Giorgio Grassi, Silvano Tintori, and Guido Canella, who were all in Rogers' course around that time.

Although aware of a new methodological tendency, he chooses to dedicate his research to the material connotations of architecture, which are elucidated in his essay "*I Materiali della Progettazione*," written for and included in Giuseppe Samoná's *Teoria della Progettazione Architettonica*. Here, Gregotti underlines the importance of technological knowledge that in essence defines one's processual and architectural approach.³⁶⁴ In June of 1966, Gregotti publishes *Il Territorio dell'Architettura*, a book that expands the domain of architectural planning to a larger regional and territorial scale, identifying a phenomenological approach characterized by the readings of Maurice Merleau-Ponty and Enzo Paci, and a structuralist method delineated by his collaboration with Umberto Eco. The book is thus structurally organized to expose and underline those important categories that define the territory of architectural design. Gregotti analyzes issues of material expression, territorial contingency and form, historical relevance, and typological analysis. Although we can recognize a certain similarity with the work and research of Aymonino, Rossi, and Grassi, Gregotti seems to

³⁶⁴ Giuseppe Samoná, *Teoria della Progettazione Architettonica*, (Bari: Dedalo, 1968), 141.

be more focused on the relationship between architecture and the environment, which has to be understood according to a figurative and iconographic logic defined by phenomenology as the study of essences, including the essence of perception and of consciousness.³⁶⁵

Thus, form is associated to those significant experiences that initially define the domain of architecture and consequently define the form within this domain. In this view, Gregotti refers to the work of Kevin Lynch and Lloyd Rodwin, who in 1958 had written an interesting article on the Journal of American Planning Association about a general theory of urban form. This article emphasized the importance of a formulaic system, a structuralist system, based on the recognition of significant categories that can be analyzed physically and phenomenologically, also proposing an isolation and deconstruction of urban form as a way to understand its hidden characters.³⁶⁶

Gregotti's book is still considerably valuable within this discourse of a tendency, but, although comprehensive in its thematic structure, it is not systemic, rational, and informative with regard to a general tendency that was supposed to propose alternatives; essentially, Gregotti's book unfolds his individual position related to a personal philosophical stance, while Aymonino, Rossi, and Grassi tend to highlight the necessity for an instructional manual that determines and underlines the rules of the discipline.³⁶⁷ Additionally, Gregotti seemed to be more interested in defining the relationship between architecture, environment and nature, which he investigates through use of large-scale

³⁶⁵ Vittorio Gregotti, *Il Territorio dell'Architettura*, (Milano: Feltrinelli, 2008), 68-70.

³⁶⁶ Ibid., 69. See also, Kevin Lynch, Lloyd Rodwin, "A Theory of Urban Form," in *Journal of American Planning Association*, Volume 24, Issue 4, (1958), 201-214.

³⁶⁷ Vittorio Gregotti, *Il Territorio dell'Architettura*, (Milano: Feltrinelli, 2008), 9.

projects.³⁶⁸ This is why it is hard to relate Gregotti's work to the intellectual project of *Tendenza*, a consideration that becomes more evident when one looks into the architectural work of Gregotti who, according to Tafuri, had become more interested in the pathological and semantic relationship existing between architecture and the landscape, intended as a geographic collection of historical signs.³⁶⁹

The intellectual figure of Ezio Bonfanti is also very important toward a more exhaustive understanding of the establishment and the consolidation of *Tendenza*, significantly because he will produce, in a short period of time,³⁷⁰ some of the most interesting essays that will define the intellectual framework of the XV Milan Triennale. Bonfanti graduates in 1963 under the supervision of Ernesto Nathan Rogers, of whom he will be his teaching assistant in the course of *Caratteri Stilistici e Costruttivi dei Monumenti*. Shortly after in 1963, he begins collaborating with *Casabella Continuità* editorial staff that will end in 1964 when Rogers was forced to leave the magazine. The same year, Bonfanti start teaching history as a voluntary assistant at the Politecnico in Milan, and design composition with Ernesto Rogers from 1965 till 1966. In 1966, he begins to battle leukemia, which will eventually kill him in 1973. His theoretical production was mostly based on editorials he had written for *Controspazio*, a magazine on architecture and urban planning directed by Paolo Portoghesi, which were focused on

³⁶⁸ Manfredo Tafuri, Francesco Dal Co, *Architettura Contemporanea*, (Milano: Electa, 1976), 359.

³⁶⁹ Manfredo Tafuri, *History of Italian Architecture, 1944-1985*, (Cambridge, MA: The MIT Press, 1990), 126-127.

³⁷⁰ Ezio Bonfanti passed away in February of 1973, a few months before the opening of the XV Triennale, which took place from September through November of the same year.

the relevance of the masters of early modernism as well as the importance of monuments in relation to urban plans.

Bonfanti recognizes the importance of Ernesto Rogers as the ideological master of a new tendency as well as the role of Aldo Rossi within such a cultural framework; in the essay titled *Maestri*, which was written in 1969 and that will be included in a collection of writings about the work of B.B.P.R., Bonfanti acknowledges Rogers' polemical attitude, which might have precluded him from a more widespread acceptance among the intellectual architectural circles, but he also underlines his methodological interest in the concept of continuity that particularly defines a specific theoretical background based on the seamless understanding of modernism.³⁷¹ In fact, Rogers looks at the early masters of modern architecture such as Loos, Le Corbusier, Gropius and Mies, but he does not consider their aesthetic or formal approach; instead he identifies a processual method that recognizes the importance of historical analysis in a critical way. There are no copies but only stylistic archetypes.

In another essay published on *Controspazio* in 1970, Bonfanti analyzes the work and methodological practice of Aldo Rossi.³⁷² Bonfanti is the first that identifies a school of thought relative to Rossi's approaches to architecture; his rigorous and analogical method in terms of formal explorations and analysis are both evident in his academic and professional work. Thus, Bonfanti discovers that Rossi works according to a precise theoretical framework, which does not allow any interdisciplinary solution while

³⁷¹ See Ezio Bonfanti, Massimo Porta, *Città, Museo, Architettura: Il Gruppo BBPR nella cultura Architettonica Italiana, 1932-197*, (Milano: Hoepli, 2008), 183-187.

³⁷² See, Ezio Bonfanti, "Elementi e Costruzione: Note sull'Architettura di Aldo Rossi," in *Controspazio*, n.10, (October, 1970), 19-28.

operating analytically toward a design composition by parts and fragments. Additionally, Rossi analogically uses and integrates specific urban fragments to his design process; this is a way to keep establishing a relationship with context, both physical that cultural and historical. Keeping and integrating fragments makes his work more considerate to a rational theory of architectural investigation, where urban conditions are valued and analyzed. Therefore, there are not new formal elements but only old architecture reinterpreted in an analogical way to create contextual continuity.

Bonfanti also investigated the relationship between autonomy and the discipline of architecture. In an article published in 1969 on *Controspazio*, Bonfanti agrees that architecture, intended as the art of building, is like art thus autonomous.³⁷³ This notion is reinforced by an understanding that architecture is a definitive discipline, characterized by precise cultural and ideological boundaries. Within this domain, we have to critically select the rules that help generating a new proposal. To be able to critically define those rules, we also have to have a comprehensive knowledge of the historical architectural product. Like in Grassi, the problem is not tautological, but it is relative to a process that, since autonomous, frees architecture from any interdisciplinary solution. Interestingly enough, the writings of Bonfanti, which will be included into *Architettura Razionale*, a book dedicated to the premises of the International section of the XV Milan Triennale published by Franco Angeli in 1973, consistently follows the criteria of architectural analysis set up by Aymonino, Rossi, and Grassi; his critical participation to the establishment of a tendency will be lucidly acknowledged in the opening pages of

³⁷³ Ezio Bonfanti, "Autonomia dell'Architettura," in *Controspazio*, n.1, (June, 1969), 24-29.

Architettura Razionale, which will be entirely dedicated to the memory and work of Bonfanti, prematurely passed away a few months before the Triennale opened.

Before concluding this assessment, I believe that it is necessary to look into the work of Costantino “Nino” Dardi, who in *Il Gioco Sapiante*, published in 1971, underlines what he calls “*Tendenze della nuova architettura*,” literally tendencies of new architecture that looked into alternative critical and methodological solutions.³⁷⁴ Dardi’s work is characterized by the same processual logic; there is an initial moment when the architect has to localize the continuous relationship between history and the emergent phenomenon that characterize a formal and analytical tendency. Again, it is not about producing new explorations, but it is about discovering the sources of architectural discourse, a process that would allow us to move ahead. Dardi also identifies a moment in architectural design when we, after having collected references and precedent, have to analytically define their distributive and formal characters by underlining those recurrent generative and regulating design principles that seem to reappear with constancy.³⁷⁵ The figurative qualities that emerge from this process have to be considered primary elements of the design process. It is again important to look back at the IUAV of Giuseppe Samoná who insisted on the role of architectural and typological formalization as a way to keep the architectural artifact timeless and authentic.³⁷⁶ This tentative to localize architecture within a rational framework implies the existence of an epistemological system of analysis, which has to be understood first and foremost

³⁷⁴ Costantino Dardi, *Il Gioco Sapiante: Tendenze della Nuova Architettura*, (Venezia: Marsilio, 1971).

³⁷⁵ Ibid., 9.

³⁷⁶ Ibid., 11.

ideologically. In fact, the necessity to produce a rigid framework entails the establishment of those rules necessary to define a new tendency; a new tendency is only possible when our systemic research on methodological and disciplinary approaches is based on a rigorous system of propositions that are logically correlated, and scientifically verifiable. This is clearly in line with the propositions elucidated by most of the architects associated with the cultural discourse of *Tendenza* and followed by some of the younger students. Among those, it is necessary to remember and acknowledge Giovanna Gavazzeni, Daniele Vitale, Massimo Scolari, Gianni Braghieri and Antonio Monestiroli, most importantly for their particular contribution on the formation of an urban practice and the design methodology based upon it.

Thus, in this chapter I have analyzed the intellectual production of Aymonino, Rossi, Grassi, Gregotti, Bonfanti and Dardi as a way to set up and ideologically expose a cultural framework that showed similar processual and thematic interests. We have seen how Aymonino focused on the origins and developments of modern cities, which he finds in the dichotomy between historical centers and new peripheries, in this case dominated by particular negative typological solutions related to an increasing industrialization of the city; Rossi also focuses on the city, understood as an architectural artifact, and a collection of *fatti urbani*. The city is the creation of an incessant process where memory overlaps with architecture and vice versa, thus creating significant architectural events, such as monuments, that end up defining morphological aspects of the plan. Rossi also sets the historical production of architecture as the measure of architecture, a system that thrives on the presence of particular archetypes, which, in

their singularity, contain the information necessary to produce rational form. Grassi sets up the rational rules of architectural design, considering architecture as the product of a fabrication process that involves a historical and material awareness, free of any sort of formal ambiguity. Formal expression has to be contained to the basic premises of architecture, while formal explorations are not necessary but only ambiguous. Grassi operates by a process of diagrammatic simplification, which is accomplished by classifying buildings according to specific types. Within this process, rationality is achieved by ordering architecture's internal building logic with a consistent and invariable methodological structure or norms and rules. Just like Ludwig Wittgenstein, who had defined the limits to thinking, Grassi identifies the limits of architecture.³⁷⁷ In his view, architecture has an underlying logical structure that provides the limits of what can be design and built. The limits of architecture are thus the limits of architectural thought, so that what we can build must be expressed clearly and rationally. The city is once again the background of this process.

Additionally, the work of Gregotti, Bonfanti, and Dardi has also acknowledged that research on methodological and disciplinary approaches should be based on a rigorous system of urban propositions, sometimes even historical like in Bonfanti's case, which are intertwined logically in order to make the final architectural product scientifically verifiable. Nevertheless, this complex intellectual matrix was not just limited by methodological production and the search for an appropriate design process; in fact, the professional collaboration among some of the members of the so-called *Tendenza* can be

³⁷⁷ Ludwig Wittgenstein, *Major Works: Selected Philosophical Writings*, (New York, Harper & Collins, 2009), 4.

traced back to the early 60s when Rossi, Tentori and Polesello had presented a proposal for the redesign of a section of Via Farini in Milan. In 1960, Magistretti, Rossi, and Polesello participate to a design competition for a skyscraper in Buenos Aires, the Peugeot building, while in 1962 Rossi and Grassi work together for the design of a school nearby Parco della Villa Reale in Monza, a collaboration that will be reiterated in 1965, when the duo presents a proposal for a residential housing unit in Naples, and in 1966 for the San Rocco Housing Unit in Monza. This disciplinary production continued with the Gallarate Housing Unit, in collaboration with Carlo Aymonino, the municipal building of Scandicci with Massimo Scolari, the Elementary School in Fagnano Olona and the San Cataldo cemetery in Modena with Gianni Braghieri.

I believe that this collaborative practice reinforced the processual and theoretical framework established by this design tendency in order to construct a better procedural methodology in architecture. If we understand architecture as a practice of concepts and ideas, then theoretical investigations might precede practice as often as practice might precede theory. This analytical process confirms *Tendenza's* necessity to propose a theoretical and methodological background that could be tested by looking at specific built work and vice versa. In conclusion, after this analysis of methodological deconstruction of the work of Rossi, Aymonino, Grassi, Dardi, Gregotti, and Bonfanti, we are finally able to locate and pinpoint the premises of a new architectural and processual methodology based on an understanding and importance of the city as repository of typological and architectural formations that will be further expressed and formalized in the International section of the XV Triennale of Milan.

CHAPTER VI

POINT OF ARRIVAL: THE XV TRIENNALE OF 1973

*“Ma questo libro, come ogni progetto, si preoccupa soprattutto delle relazioni che si stabiliscono tra i fatti; è pensabile che queste relazioni rendano il materiale più omogeneo nella prospettiva di costruire un unico progetto.”*³⁷⁸

Aldo Rossi

Introduction to the XV Triennale: A Brief History

The Triennale was established as an exhibition that provided an overview of modern decorative and industrial arts, offering a comprehensive understanding of artistic and architectural production not only in Italy but also internationally. The first edition opens at the Villa Reale in Monza in 1923, and it is titled “*Verso la Modernità*.” The exhibition is articulated around eleven different showrooms that include an Italian section, and international section, and a publishing and graphic collection. At this point, the exhibition is held every two years until 1927; after 1927, the exhibition will be held every three years (*triennale*), while it will finally move to the Nuovo Palazzo dell’Arte in Milan in 1933. Additionally, the denomination of the exhibition changes from *Esposizione Internazionale delle Arti Decorative* to *Esposizione Internazionale delle Arti Decorative e Industriali Moderne e dell’Architettura Moderna*, while the Politecnico splits its didactic into two distinctive schools: architecture and engineering. The Triennale goes on with alternate success until 1968, and I believe that in order to

³⁷⁸ But this book, just like any project, is concerned about the relationships between facts; it is thinkable that those relationships might make the material more homogeneous in the possibility to construct a single method; (my translation), in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 13.

understand the importance of the XV Triennale, we have to take a step back and look at some of the events that defined the exhibition of 1968.

In Italy, the cultural, political and economical situation in the 50s and early 60s had been characterized by a strong will to reorganize the industrial sector in order to revive a spent economy. Those are also the years of leftist, both communist and socialist, protest against the unfair conditions of the working class, which were delineated by numerous strikes against the employers and the adherence to unions such as CISL and CIGL.³⁷⁹ Politically speaking those unions were supported by the PCI, the communist party, and the PSI, the socialist party, which, in the meantime, had tried to establish a political coalition with the Democratic Christian party (DC) in order to reorganize the country according to an extensive program of social reform. But those are also the years when most of the young architecture students in Rome and Milan had engaged into a critical polemic against conservative faculty members, guilty of implementing a didactic still characterized by a sort of fascist conservatism. It is not the case that Rossi, Aymonino, Grassi, Rogers, Tafuri, were all politically associated with leftist parties, particularly the PCI, the communist party, which was ideologically delineated by an aggressive and antagonistic practice, a clear result of Marx's understanding of the idea of class struggle.³⁸⁰

Toward the end of the 60s, Italian economy had shown an exponential growth, mostly based on the establishment of new industrial centers in Milan, Turin, and Rome.

³⁷⁹ Paul Ginsborg, *A History of Contemporary Italy: Society and Politics 1943-1988*, (New York: Palgrave MacMillan, 2003), 192.

³⁸⁰ Federica Visconti, Renato Capozzi, *Architettura Razionale* (Napoli: CLEAN, 2008), 31.

This condition of extreme industrialization had particularly put the Italian territory, urban and rural, in big distress. As Aymonino explained in his book *Origini e Sviluppo*, the integration of industrial zones on the outskirts first, and then with the rest of the historic city, had created a sense of urban instability characterized by uneven developments and the lack of primary infrastructures. During those years, we recognize two different way to overcome this territorial situation: a processual approach based on extreme professionalism and functionalism, and a more intimate approach based on the understanding of the city as an architectural artifact characterized by socio-political variations. While the first approach proposes a sterile application of functional schemes, the second method, developed by that school shaped by Rogers, Samoná, and Quaroni, analyzes historical and typo-morphological issues as a way to propose a new planning proposal, essentially more contiguous with instances of historical awareness typical of the Italian landscape.

In 1968, Giancarlo De Carlo was invited to organize the XIV Milan Triennale. De Carlo had initially collaborated with *Casabella Continuità* with Ernesto Rogers from 1953 until 1957. Rogers' editorial line was essentially based on his notion of continuity and tradition, conceived as a critical awareness to understand and then overcome the past without complying with its formal architectural expressions. Although all the members of the editorial essentially accepted this line of thought, Giancarlo De Carlo decided to take a different stand and criticize the work of the so-called *giovani delle colonne*, a group of students at the Politecnico of Milan formed by Silvano Tintori, Guido Canella, Aldo Rossi, Maurizio Calzavara, and Laura Lazzarri who, instead, were advocating for a

didactic less aesthetic and more open to real issues and problem. Therefore, in 1957, De Carlo leaves *Casabella Continuità* because of insurmountable “cultural divergences.”³⁸¹ In reality, De Carlo did not approve of the methodological research and work of the *giovani delle colonne*, but most importantly, he did not approve of the increasing editorial collaboration with Aldo Rossi and Guido Canella, both of whom, according to De Carlo, symbolized an ambiguous return to formal historicism.³⁸²

The Triennale of 1968 had been organized around five different sections; the “Large Number” curated by De Carlo, a national section with fourteen different countries invited, a temporary exhibition, a pavilion for the expression of Italian artifacts, and a section on interventions in historical centers. The exhibition opened May 30 of 1968, and it was occupied immediately after the opening ceremony by a large group of architecture students, who saw in the XIV Triennale the consolidation and establishment of a bourgeois driven institution. Essentially, the students protested against this ideological proposal, that of the large numbers, which was understood as a way to generalize the production of individual freedom through creative excesses without a precise, perhaps prescriptive, methodology.³⁸³ The installations by Peter Smithson, Aldo van Eyck, Archigram and Arata Isozaki were destroyed, while Giancarlo De Carlo was portrayed in a famous photograph standing amidst students trying to establish a sort of dialog and calm everybody down (Figure 27).

³⁸¹ Giancarlo De Carlo, “Una precisazione,” *Casabella Continuità* n.214 (February-March 1957).

³⁸² Ibid.

³⁸³ See, *Domus*, n.866, (January 2004), front fold-up cover.



Figure 27. Giancarlo De Carlo: XIV Triennale of 1968. De Carlo is standing amid of protesting students at the opening of the XIV Milan Triennale of 1968; in *Domus*, n.866, (January, 2004).

The exhibition remained closed until June 23rd, and although it reopened without further problems, several lectures such as the one of the “Artist and the Large Numbers” was officially cancelled. The events behind the exhibition of 1968 were quite unfortunate as it ended up precluding the establishment of an alternative discourse based on the conceptual idealization of radical approaches that were less conservative and more open to methodological transgression. Interestingly enough, Aldo Rossi was originally part of one of the committees designated to generate the outlines of the exhibition along with Giancarlo De Carlo, Marco Zanuso and Alberto Rosselli, but he ended up leaving, perhaps because of disagreements with the same De Carlo, who, years before, had been very critical of Rossi and the other *giovani delle colonne*.³⁸⁴

The unfortunate outcomes of the XIV Triennale as well as the escalating student protests that had generated multiple occupations of universities and schools produced a climate of academic and professional negativism, which had terrible effects on the role of the Triennale as well as architecture culture in general. In fact in 1971, while the Triennale had to deal with the economic debt accumulated after the facts of 1968, Aldo Rossi, who had obtained professorship in architectural design both in Milan and Palermo, was suspended along with other members of the faculty council and forced out the Italian university system for political activism within the academic system.³⁸⁵ However, the same year, Rossi wins the design competition for the San Cataldo

³⁸⁴ Giancarlo De Carlo, “Problemi concreti per i giovani delle colonne,” *Casabella Continuità* n.204, (February-March 1955), 83.

³⁸⁵ Alberto Ferlenga, *Aldo Rossi: 1959-1987*, (Milano: Electa, 1996), 311. See also Elisabetta Vasumi Roveri, *Aldo Rossi e L'architettura della Città: Genesi e fortuna di un testo*, (Torino: Allemandi, 2010), 156.

Cemetery in Modena in collaboration with Gianni Braghieri, which along with the Gallarate Housing project completed in 1970 puts the Italian architect on the map of architectural relevance. In 1972, Rossi accepts an academic position at the Swiss Federal Institute of Technology Zurich (ETHZ), which he will keep for three years and where he will collaborate with Fabio Reinhart and Bruno Reichlin teaching the young Jaques Herzog and Pierre de Meuron.³⁸⁶ However, while in Switzerland, Rossi remains very active within the Milanese circle, and in 1973, he is finally invited to organize a section of the newly revived Triennale in collaboration with Franco Raggi, Massimo Scolari, Rosaldo Bonicalzi, Gianni Braghieri, and Daniele Vitale.³⁸⁷

Again, in order to historically frame the 15th Triennale, those are the years that followed the consolidation of the Italian economic miracle of the 60s, which represented a significant cornerstone in the socio-economical developments of the country. Yet, this exponential process of growth, and its uneven socio-economical developments, ended up generating tensions among social classes; thus, students and operaist uprisings became the emblem of a renewed protest against capitalistic dominated governments, a peculiarity that will lead to the crisis of 1973 and the resulting embargo by the Organization of Arab Petroleum Exporting Countries (OAPEC), which consequently

³⁸⁶ “Jaques Herzog,” ETH Basel, accessed June 24, 2011, <http://www.studio-basel.com/People/Prof-Jacques-Herzog.html>

³⁸⁷ Although the themes of the XV exhibition had been outlined, the Italian government had not paid the debt accumulated during the Triennale of 1968 yet. However, the XV Triennale will open on September 20th after the city of Milan had provided sufficient funds for the entire exhibit. See, Luca Skansi, “Ornamento e delitto: un film di Aldo Rossi, Gianni Braghieri, Franco Raggi,” in *La Lezione di Aldo Rossi*, ed. Annalisa Trentin, (Bologna: Bononia University Press, 2008), 265.

caused the “1973 oil price shock” and stock market crash.³⁸⁸ Those historical, social, and economical events become extremely important while we look into the architectural production exhibited at the Triennale; in fact, as we entered a period of tough financial crisis, architecture had to be less frivolous and more responsive to precise criteria such as the necessity to build rationally and economically without particular emphasis on radical experimental operations; essentially, architecture needed to be less aesthetic and more ethic, and that is the major reason why Aldo Rossi decides to dedicate the International section of the XV Triennale to the premises of rational architecture, which were explicitly expressed in the exhibition *Architettura-Città*.

Architettura-Città: An Analysis of the Work Exhibited

*“L’architettura Razionale non è una visione estetica o morale, un modo di viver, ma l’unica risposta sistematica ai problemi posti dalla realtà.”*³⁸⁹

Aldo Rossi

The XV Triennale exhibition was articulated around three main themes: the International Exhibition of Architecture and Industrial Design, the National Sections with emphasis on the architecture of Hungary, Japan, Yugoslavia, Romania, Australia, and the other Scandinavian countries, and the Italian section (see Figure 28 for floor plans of exhibition).

³⁸⁸ Paul Ginsborg, *A History of Contemporary Italy: Society and Politics 1943-1988*, (New York: Palgrave MacMillan, 2003), 329.

³⁸⁹ “Rational architecture is not an aesthetic vision nor a moral or a way of living, but it is the only systemic answer to real problems.” Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), (my translation), also cited in Federica Visconti, Renato Capozzi, *Architettura Razionale* (Napoli: CLEAN, 2008), 1.

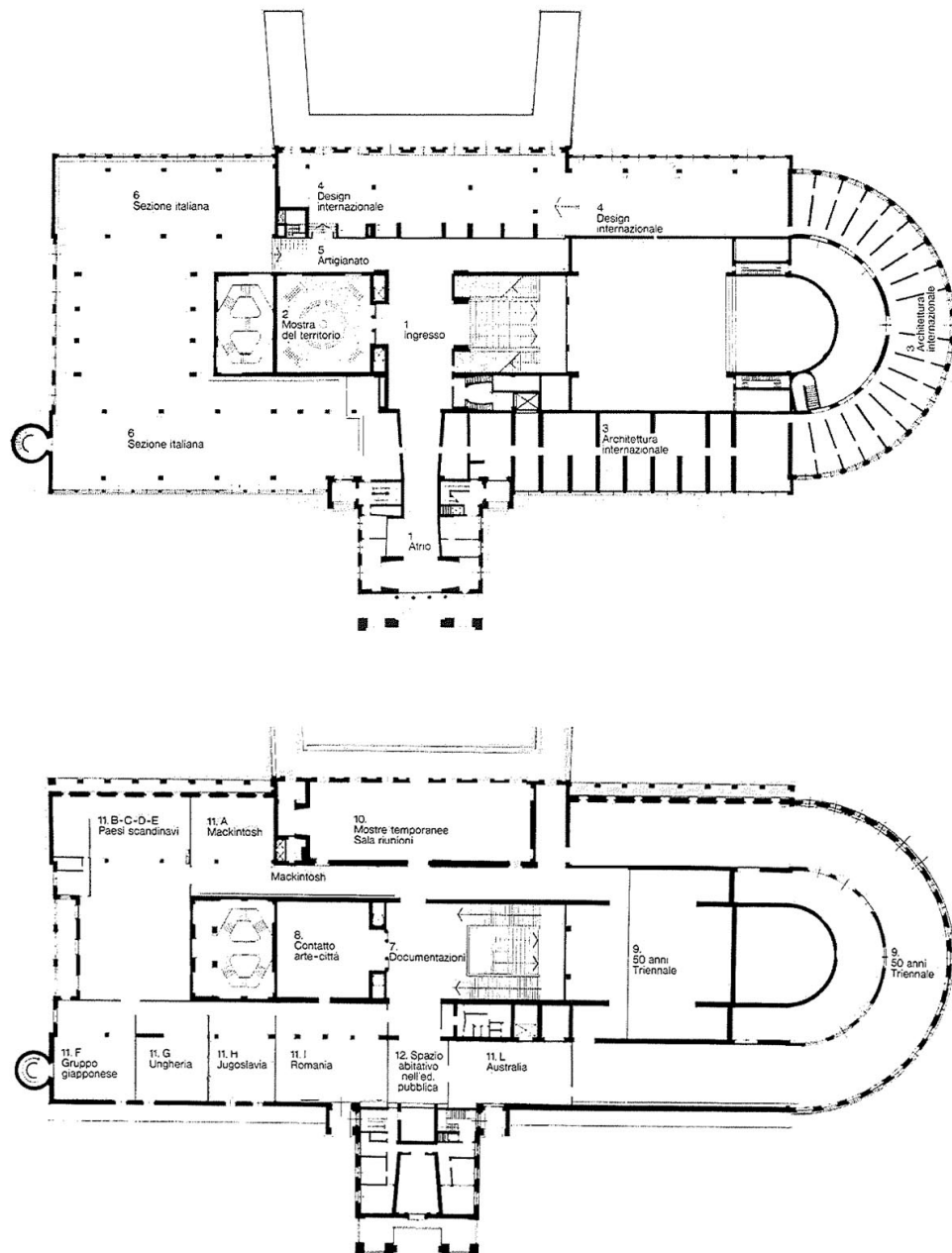


Figure 28. XV Triennale of 1973: Floor Plans. First floor plan (Above) and Second floor plan (Below); Piero Giangaspro, *Quindicesima Triennale di Milano: Esposizione Internazionale delle Arti Decorative e Industriali Moderne e dell'Architettura Moderna; Palazzo dell'Arte al Parco, Milano, 20 Settembre - 20 Novembre 1973*, (Milano: Nava, 1973), 23-24. Edited by Author. For a more detailed plan of the International section, see Appendix C.

Those three themes were divided into twelve different exhibitions. Rossi's section on *Architettura-Città* was part of the International Exhibition of Architecture and Industrial Design, coordinated along with Andrea Branzi, Ettore Sottsass, and Eduardo Vittoria. Branzi and Sottsass directed the industrial design component; Eduardo Vittoria curated the Italian section, while Rossi took over the direction of the International architecture section along with Massimo Scolari, Franco Raggi, Rosaldo Bonicalzi, Gianni Braghieri, and Daniele Vitale. At this point, I believe that it is important to underline how different and ideologically disjointed the three sections were, a predicament that was later emphasized and criticized by Almerico De Angelis and Joseph Rykwert.³⁹⁰ In fact, while Rossi's exhibit is understood as a collection showcasing the most significant architectural work worldwide that tackles recurrent disciplinary issues, Branzi and Sottsass' exhibition condemns the ambiguity and contradictions of contemporary industrial design and, in particular, the crisis between designer and industry, object and subject.³⁹¹ Eduardo Vittoria's Italian section is instead more pragmatic in its conceptual framework as it offers a more realistic and utilitarian approach based on technological advances, efficiency, and simplification.³⁹² There is thus an apparent discontinuity in terms of ideological guidelines; Rossi organizes his exhibitions proposing a structure based on architectural work and precedents; on the other hand, Branzi and Sottsass focus on the production of an "anti design" ideology that

³⁹⁰ See, Joseph Rykwert, "15 Triennale," in *Domus*, n. 530, (January, 1974), 4; Almerico De Angelis, "XV Triennale," in *Op.Cit.*, vol. 29, (January, 1974), 55-56.

³⁹¹ *Ibid.*, 47.

³⁹² Piero Giangaspro, *Quindicesima Triennale di Milano: Esposizione Internazionale delle Arti Decorative e Industriali Moderne e dell'Architettura Moderna; Palazzo dell'Arte al Parco, Milano, 20 Settembre - 20 Novembre 1973*, (Milano: Nava, 1973), 45-46.

privileges the anthropological complexity of imagery, video imagery in this case, as a way to emphasize ideas over objects. In Sottsass and Branzi's exhibit there are no drawings, posters, or models but only television sets broadcasting videos on technology, anthropology, and mass communication. To add to this somehow incoherent rambling of exhibits, it is opportune to remember Filippo Allison's display of Charles Rennie Mackintosh's work, the retrospective on the 50 years of the Triennale, Gianfranco Betterini's section on the problems of the territory, the relationship between art and the city curated by Giulio Macchi, and a temporary exhibit organized by Riccardo Dalisi.³⁹³

While the Triennale as a whole is generally fragmentary in its conceptual organization, Rossi's International section appears to be quite coherent to a certain tendency that had been developing over the last fifteen years in the schools of Milan, Rome, and Venice, and that had also found significant interpreters abroad.³⁹⁴ In his introduction to the book *Architettura Razionale* published after the exhibition as a sort of ideological companion, Rossi states that the International section had been coordinated in order to underline an existing methodology that, although characterized by heterogeneous solutions, could define a singular and coherent design process.³⁹⁵ In order to accomplish this task, Rossi and his collaborators had collected historical precedents, essays, works of architecture, and other critical disciplinary projects that did not have or

³⁹³ Almerico De Angelis, "XV Triennale," in *Op.Cit.*, vol. 29, (January, 1974), 62.

³⁹⁴ The work of Peter Eisenman, Michael Graves, Charles Gwathmey, John Hejduk, Richard Meier, Oswald Mathias Ungers, Carlos Marti, Robert Venturi, Denise Scott Brown, and James Stirling was exposed in the International section curated by Rossi. The work was not necessarily associated with the Italian tendency, but in some cases it was symptomatic of a common formal and analytical approach to architecture's current problems.

³⁹⁵ Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 13.

offer any sort of interdisciplinary proposition. Essentially, they had proposed the equivalency of architectural discourse, which could be ideologically articulated not only by completed projects, but also by essays, writings, drawings, models, and diagrams, or what Rossi had called *materiale concreto*, tangible materials. Thus, architecture in its rational expression was supposed to be at the center of this debate, a consideration that emphasizes the understanding of the discipline as autonomous and independent of any technocratic approach. Again, this proposition was delineated by a methodical illustration of particular design proposals and built work that reinforced Rossi's discourse of a specific processual tendency; additionally, the work of some of the early rationalists such as Hilberseimer, Behne, and Schmidt had also been exposed to highlight their critical stand toward the modernist movement, guilty of ambiguous associations with an extreme functional logic that had reduced architecture to a discipline dictated by capitalistic interests of mass production.³⁹⁶

Rossi, Bonicalzi, Vitale, Scolari, Braghieri, and Raggi coordinated the International section proposing socialist models such as the University of Moscow and the Karl Marx Allee in East Berlin because their significance would go beyond a stylistic approach; rationalism was thus understood as the opportunity to overcome styles and focus on real urban and metropolitan issues, particularly identifiable in the problem of residential housing. Again, Rossi and his close group of collaborators believe that the work of Hilberseimer, May, Schmidt, and Meyer has provided the tools necessary to overcome a stylization of the discipline, tools that in most cases showed an interest

³⁹⁶ Ibid., 14-15.

toward simplification and formal reduction; by supporting this view, they truly believed that architecture's primary concerns should be more ethic than aesthetic.³⁹⁷ Yet, we also have to address the importance of historiography and its relative concept of continuity. Back to Ernesto Rogers, the use of history is understood as a programmatic and methodological tool; we look at precedents as a way to identify particular architectural solutions that have addressed particular issues. The architect should not try to imitate those formal expressions, but he should recognize and understand those logical proponents that ended up defining their formal expression. Essentially, we ought to be able to deconstruct any historical precedent in order to grasp its essence and translate it into new architecture. Thus, it is history that connects the early rationalist approaches to the new advances in our discipline. I have shown how a rationalist methodology had continually articulated its conceptual proponents over time; from the Vitruvian explorations to the propositions of the French revolutionaries, from the Protorationalist ideas of Berlage, Tessenow, and Loos to the work of Rossi, Grassi, and Aymonino, architectural production has shown a continuity of ideas and processes that has defined a particular approach less aesthetic and more methodologically interested in establishing a course of action.

This common line found particular expression in the International section of the XV Milan Triennale, which focused on a kind of architecture attentive to the relationship between the architectural object and its contextual background, the city. Typological research and classification are used as a way to generate this continuity. As a result, we

³⁹⁷ Ibid., 16.

have to underline categories of building types in order to establish a tangible connection with the existing urban fabric. To further reinforce this tendency, Rossi proposes a thorough study of residential types as a point of departure and not as a point of arrival because typology has to show us how formal variations can be related to programmatic and distributive characters. Thus, the design process is broken down into two different phases: a research phase also called analysis, and a design phase where the analysis finds formal expression. Those two moments have to be connected by a coherent and logical methodology; Rossi identified this quality in the work of Behne, Rogers, Hilberseimer, Loos, J.J.P. Oud, Le Corbusier, Bruno Taut, Leonidov, Meyer, and Mies van der Rohe.³⁹⁸ Yet, Rossi is not interested in form, and, for that matter, the Triennale is not entirely homogeneous in terms of formal representation through work of architecture,³⁹⁹ but it is rather the rationalization of the design process and its methodological proponents that should be object of discussion and analysis. Thus, the exhibition was organized to showcase this processual implication in a more figurative and architectural way by showing drawings, models, and diagrams, and by selecting determinate architects, buildings, and pedagogical curriculum generated by schools of architecture in Italy and Europe in order to underline a predominant tendency. In his opening introductory article published on *Controspazio* in 1973, Rossi states that:

³⁹⁸ Ibid., 24-61

³⁹⁹ Again, if we formally analyze some of the work exposed, we cannot find any sort of formal coherency; for instance, the work of Eisenman, Meier, Graves, Krier, and Venturi was exhibited along with the work of Gregotti, Aymonino, and Adolfo Natalini. The two groups could have been more heterogeneous in their approach to form generating processes. Yet, the International section of the XV Triennale was not organized to look at unique production of form, but it was organized to offer a comprehensive view of architectural production worldwide based on a rational approach.

*La Sezione Internazionale di Architettura della XV Triennale ha offerto il quadro di una nuova situazione che da tempo andava maturando in Europa e nel mondo permettendo di cogliere con maggior precisazione alcuni caratteri alternativi, di fissare delle scelte, di permettere delle valutazioni di Scuola, personali, di gruppo. La mostra ha indicato soprattutto le principali direzioni di sviluppo odierne; e particolarmente quelle dove il rapporto con la città e i problemi urbani sono intesi come fondamento dell'architettura.*⁴⁰⁰

Rather than creating a style or legitimizing it, the exhibition was organized and put together to offer a disciplinary dialogue between propositions based on similar methodologies and themes, but that were formalized quite differently. Thus, it is important to understand that the exhibition, even though showed a diverse collection of work linked by a certain urbanistic theme, was organized to underline the existence of a big processual initiative, basically a methodology whose guidelines were characterized by different approaches. It is interesting to note that at this point there is not a *Tendenza* intended as a distinctive movement, but only a processual tendency characterized by common ideological directions that were trying to reconnect with the authentic tradition of early modernism. I believe that it is important to go back to Rogers' early editorial:

*Coerenza, tendenza, stile non sono sinonimi, ma tre momenti del processo storico nel quale si determina il fenomeno artistico.*⁴⁰¹

⁴⁰⁰ The International Section of the XV Triennale has provided the framework for a new situation that was maturing for some time in Europe and world wide, allowing us to understand with greater precision some of the alternative characters, choices, to evaluate personal and group didactic. The exhibition has indicated that, above all, the main directions of developments today; and particularly, those where the relationship with the city and its urban problems are understood as the foundation of architecture; (my translation), in Aldo Rossi, "Perché ho fatto la mostra di architettura alla Triennale," in *Controspazio*, n. 6, (December, 1973), 8.

⁴⁰¹ Coherence, tendency, and style are not synonymous, but they are three moments of an historical process, which defines the artistic phenomena; (my translation), Ernesto Rogers, "Elogio della Tendenza," in *Domus*, no.216, (December, 1946),.

Back in 1946, Ernesto Nathan Rogers was advocating for a more coherent line of work that would produce a new style. The words coherence, tendency, and style were used in association to dictate a new procedural methodology necessary to comprehend the importance of the historical analysis. Coherence is the quality necessary to define the boundaries of a moral domain, which is associated to a harmonious one; the two also define a precise methodological approach. Tendency is the ideological expression of this dualistic relationship between morals and harmony, and style is the formal result of this process. Thus, architecture has to be produced by an ideological expression characterized by moralistic and harmonious objectives that can create what Ernesto Rogers called a “legitimate style.”⁴⁰² *Architettura Razionale* is the legitimate style object of the XV Triennale organized by Aldo Rossi, and in order to identify some of the major analytical and methodological components that defined the exhibition, I think that it is opportune to look at the organizational structure of the International section, and consequently at some of the work exhibited in the *Palazzo dell'Arte al Parco* in Milan.

The first part of the exhibit shows work in Berlin, Rome, Barcelona, Trieste, Venice, Bologna, Udine, Stuttgart, Zurich, and Naples, while the second section of the exhibit is dedicated to single architects and academic groups associated to particular academic institutions such as the Politecnico, the University of Naples, the University of Pescara, and the ETH in Zurich. All the original material shown is relatively displayed to facilitate the understanding of the different themes approached; again, this International section did not provide a unilateral view, but it presented an overview of contemporary

⁴⁰² Ernesto Rogers, “Elogio della Tendenza,” in *Domus*, no.216, (December, 1946), 2

architecture in the 70s. Rationalism is the ideological foundation of Rossi's outline for the exhibition. This proponent is understood historically as it provides a progressive and thematic connection with the work of early modernism. This is the reason why the first showroom is entirely dedicated to the memory of Ernesto Rogers, Piero Bottoni, and Hans Schmidt, in what had been called *La Sala degli Omaggi*, an homage room that highlighted the architectural and ideological continuity of the exhibition. In fact, their approach was characterized by an anti-academic representation of rationality, which was absolute, flexible and free of any stylistic proponent, and that also emphasized the production of form as a result of social interaction.⁴⁰³ The work exposed was relevant to this discourse and included la Torre Velasca, and the QT8 colony district designed for the VIII Milan Triennale in 1947 by B.B.P.R. in collaboration with Piero Bottoni, and a study for public housing units in Basel by Hans Schmidt (Figures 29, 30). Once again, this choice was dictated by the necessity to establish a connection with the rational tradition of early modernism, which would underline some of the ambiguous problems of architectural production in a capitalistic society. The work of Bottoni, Rogers, and Schmidt deals with issues of residential and large-scale design; within this framework, their solutions, with the exception of la Torre Velasca, which is an historical interpretation of Milanese medieval architecture, tries to understand residential living,

⁴⁰³ Adolf Behne, "Non più lo spazio modellato bensì la forma della realtà," in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 24.

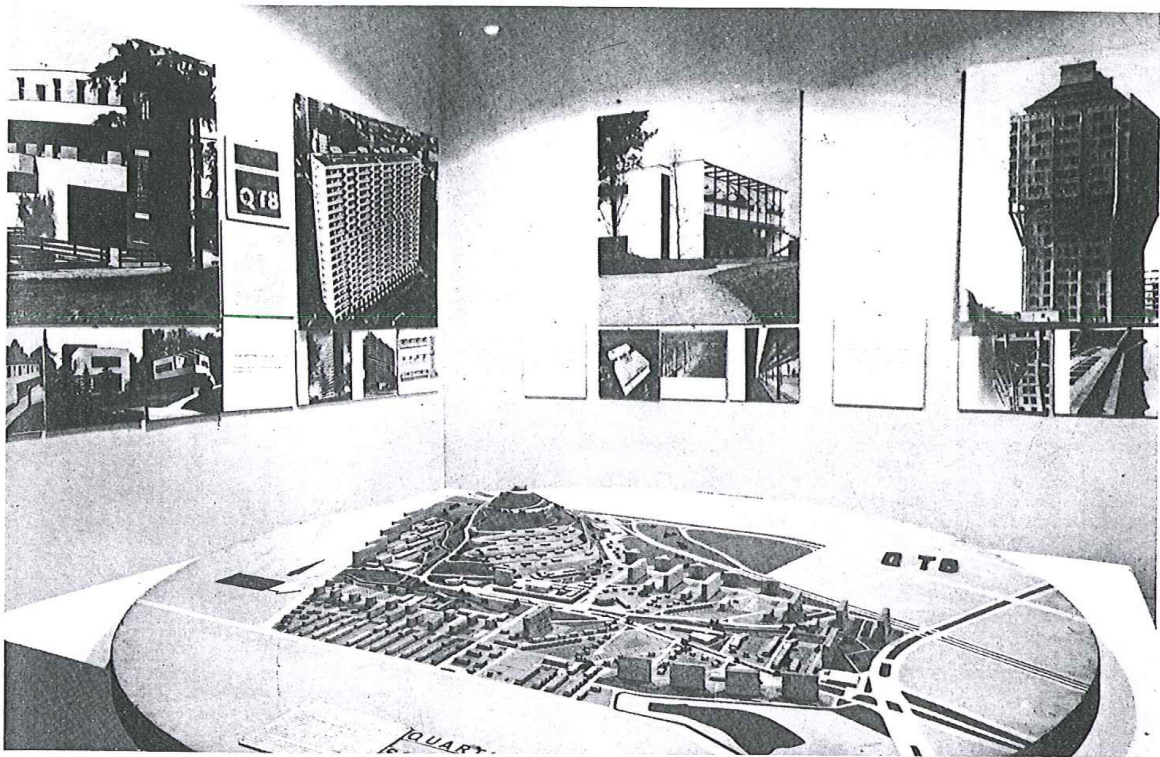


Figure 29. XV Triennale of 1973: Sala degli Omaggi. Piero Bottoni, Studio B.B.P.R. QT8 masterplan, and Torre Velasca; from Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 17.

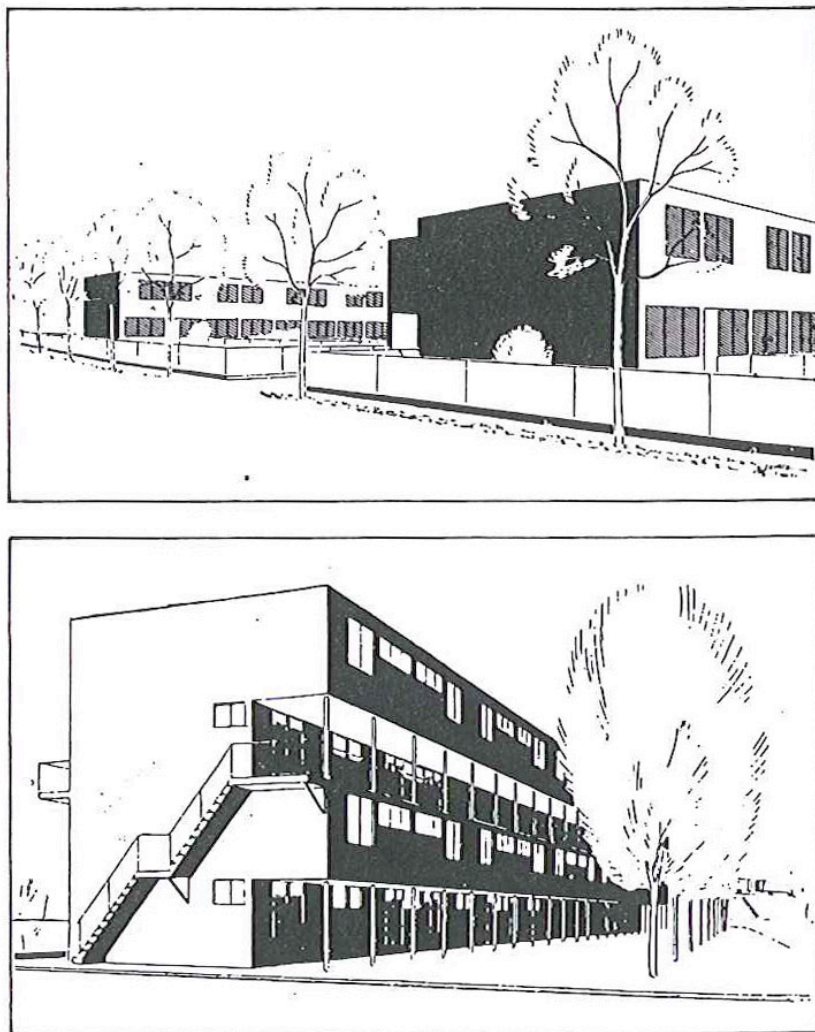


Figure 30. XV Triennale of 1973: Hans Schmidt, Public Housing studies, Basel. from Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 19.

typologically speaking, in relation to the existing urban fabric. Schmidt is interested in coordinating modulus that impose a strictly geometric system as a way to increase mass production; Bottoni and Rogers uses a similar approach based on an integration of site conditions with residential living by creating a masterplan with social, recreational and residential spaces; Bottoni and Rogers design for QT8 is, however, quite different than Schmidt proposal. While Schmidt pushes on issues of standardization with little to no regard to site planning issues, Rogers and Bottoni tries to recommend a solution that responds to particular territorial qualities, making it more sites specific than Schmidt's solution in Basel. It is thus a type of architecture that can be generated by external factors and contextual conditions, but when it is completed it can only be explained and critically analyzed by looking at its characters of autonomy: a building is a building, therefore we need to use its formal and technical specificity to completely understand it.⁴⁰⁴ Again, architecture is historically characterized by technical and technological aspects with precise utilitarian components; within this set of parameters, architecture itself cannot be explained or ideologically legitimized by interdisciplinary approaches because they don't respond to its origins and specificity of action. This certainly explains the close relationship that Rossi and his collaborators established with the premises of historical continuity; if we accept the definition of an autonomous architecture characterized by precise recurring rules, both formal and technical, then architecture could only be explained by other architectures. Continuity is also understood as a

⁴⁰⁴ Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 19. See also Siegfried Giedion, *Spazio, tempo e architettura*, (Milano: Hoepli, 1954), 20.

manifestation of this process that reaffirms important historical themes as a prerogative for a new method based on the intertwining relationship between architecture and its analytical and formal precedents. History is seen as an intellectual and cultural methodological choice that even though can be demarcated by stylistics ambiguity (see Post-Modernist production by Charles Moore, Robert Stern, and Charles Jencks), it can underline continuity within chronological discontinuity by connecting historical moments exemplified by processual similarities. Tradition is not necessarily associated with a return to revivals, but it is the product of a renewed awareness in those formal, analytical, and technical components that make architecture an autonomous discipline. Continuity is also understood as a moral component; in fact, history is not just a collection of styles or formal explorations, but it is also understood as a register of social and political difficulties that had actively transformed our built environment.⁴⁰⁵

Thus, architects had the social and moral responsibility to understand and grasp those difficulties and keep track of them while generating an appropriate design. This comprehensive approach is also explained by a continuous interest in the field of urban studies. I have analyzed the importance of the work of Quaroni, Samonà, Aymonino, and Rossi, which had significantly emphasized the importance of the city as operational field, underlining the relationship between residential typology and urban morphology as well as the connection between analysis and design process. Those proponents operate according to a precise rational methodology based on the observation, description, and classification of urban information relative to the architecture of the city, which can

⁴⁰⁵ Ibid., 22.

generate different urban scenarios.⁴⁰⁶ It is also important to understand the significance of the city as a clear delineation of architecture's proper domain that is identifiable in terms of tangible knowledge. Rossi states that:

*Ecco che L'architettura come cosa umana, compresa tra necessità ed intenzionalità estetica, la tipologia con tutte le sue implicazioni, la manualistica, il problema degli schemi e dei modelli, costituiscono i fondamenti e le premesse di uno studio analitico della città....di una Teoria dell'architettura.*⁴⁰⁷

This definition of architecture delineated by a strong human component is defined according to a precise relationship existing between typology and urban morphology, which essentially explains the rationale behind the formation of what Rossi calls *fatti urbani*, urban events, and their historical positioning that fundamentally clarifies the predominance of a certain formal architectural expression. Accordingly, the International section of the XV Triennale is articulated around the methodological framing of issues of architectural urban analysis as well as the understanding of architecture as a disciplinary generator of knowledge that defines the overall outline of a new tendency. A collective project is only possible when we achieve a symbiotic relationship between those components; then, according to Rossi, a rational stance based on a rigorous system of logical foundations should direct this process of methodological

⁴⁰⁶ Giovanna Gavazzeni, Massimo Scolari, "Note metodologiche per una ricerca urbana," in *Lotus*, vol.7, (1970), 125-126.

⁴⁰⁷ Architecture as a human component, delineated between necessity and aesthetic intentionality, typology with all its implications, the manual, the problems of schemes and models, they all constitute the foundations and the premises of an analytical study of the city....a theory of architecture; (my translation), in Aldo Rossi, *L'Architettura della Città*, (Padova: Marsilio, 1971), 8.

assimilation that is essentially proposing a new system where formal explorations are logically produced and classified.⁴⁰⁸

This procedural methodology is also evident in the work of the Five Architects, a group formed by Peter Eisenman, Richard Meier, John Hejduk, Charles Gwathmey, and Michael Graves. Interestingly enough, just like *Tendenza*, the five were never officially a group, while their work was underlined by a common necessity to develop a formal logic through graphic and analytical studies, which in some cases, through a process of conceptual rationalization, reduced the architectural scheme to pure formal and diagrammatic representations.⁴⁰⁹ Their work, although heterogeneous, is mostly explainable by an embodied generative logic that becomes the representation of a method born in juxtaposition to the cultural and intellectual development in the USA, which had escalated into a sort of Neo-Classical and monumental revivalism, typical of Post-Modernist production.⁴¹⁰ This is essentially the primary reason why Rossi and his collaborators decide to invite the five American architects, whose work had been already displayed in 1969 at a meeting of the CASE group (Conference of Architects for the Study of the Environment) at the MoMA, and whose content had been published by George Wittenborn in 1972.⁴¹¹ In this view, the work of Peter Eisenman is important because it shows a processual precision based on a logical manipulation of volumetric

⁴⁰⁸ Aldo Rossi, "Architettura per Musei," in *Teoria della Progettazione Architettonica*, (Bari: Dedalo, 1968), 137.

⁴⁰⁹ Paul Goldberger, "A Little Book that Led Five Men to Fame," *The New York Times*, February 11, 1996.

⁴¹⁰ See Romaldo Giurgola, Allan Greenberg, Charles Moore, Jaquelin T. Robertson, and Robert A. M. Stern, "Five on Five," in *Architectural Forum* 138, n.4, (May 1973).

⁴¹¹ See Peter Eisenman, *Five Architects: Eisenman, Graves, Gwathmey, Hejduk, Meier*, (New York: Wittenborn, 1972).

and geometric components. His work is characterized by a formal dichotomy between signifier and signified, where the signified, the architectural function, stays the same, while the signifier, form, changes according to a precise and rigorous process of manipulation; this is clearly represented in some the original drawings and diagrams for House I, designed by Eisenman in 1957, which showed graphic variations of a persistently changing system of thought (Figure 31).⁴¹²

It is also essential to analyze the relevance of the work of Superstudio and Adolfo Natalini with respect to the International section of the XV Triennale. Clearly more radical activist in his ideological background, Natalini does not quite belong to the group close to Rossi's methodological tendency, but, on the contrary, he is one of the major antagonists of traditional thinking and proponent of a critical system based on a rhetorical use of metaphors and imagination as a way to criticize architecture and society.⁴¹³ However, the inclusion of Superstudio's project for six houses (Figure 32) as well as the famous Continuous Monument emphasized the necessity and conventionality of modular schemes as a way to rationalized architectural processes. In the number 6 issue of *Controspazio*, published in December of 1973 and entirely dedicated to the International section of the XV Triennale, Siola and Bonicalzi, see this conventionality

⁴¹² Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 20.

⁴¹³ Adolfo Natalini, "Superstudio in Middleburg: Avant-Garde and Resistance," in *Superstudio: the Middleburg Lectures*, ed. Valentijn Byvanck, (Amsterdam: De Vleeshal and Zeeuws Museum, 2005), 25.

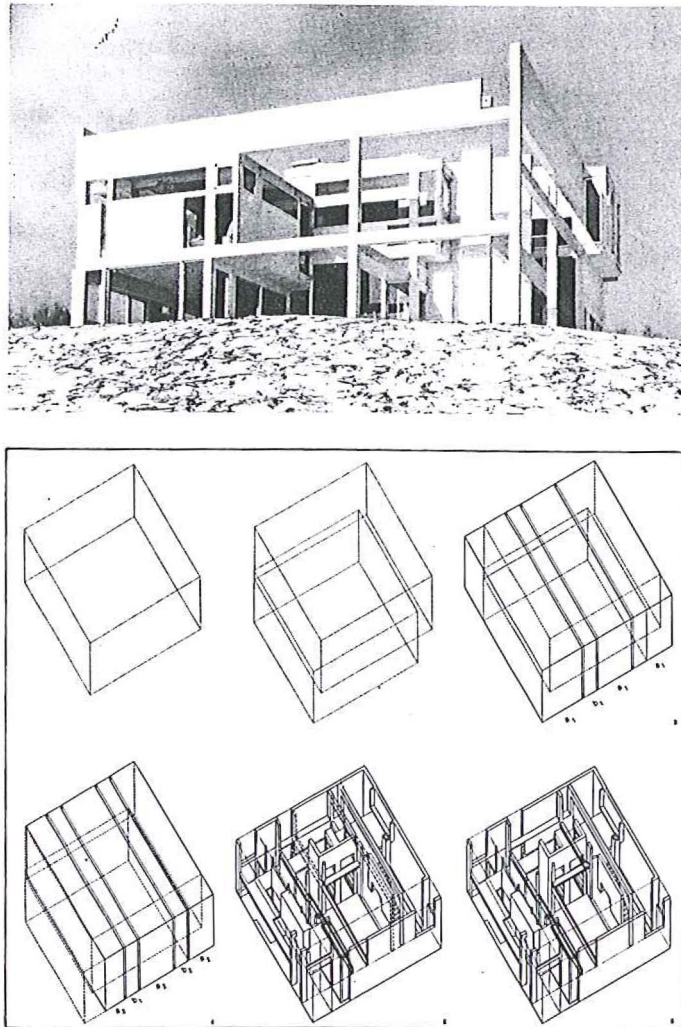


Figure 31. XV Triennale of 1973: Peter Eisenman, House I, 1957. From Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 20.

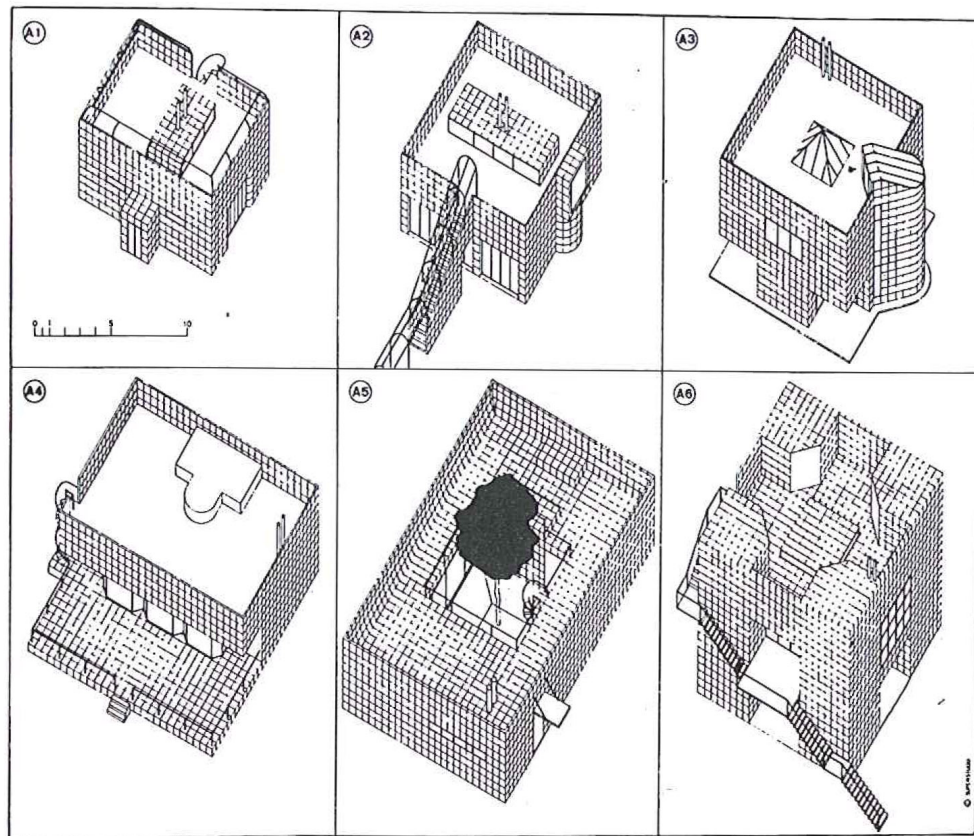


Figure 32. XV Triennale of 1973: Superstudio, Six Houses. From Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 25.

as a way to complement the typological process of urban analysis.⁴¹⁴ Even the Continuous Monument, although seen as a pseudo-utopian solution, superimposes itself to the existing urban fabric, becoming integrant part of a process of collective architectural elaborations defined by precise monumental elements. Yet, Superstudio's work is probably the least logical to be included in the International section curated by Rossi, mostly because their intellectual articulations were based on a process of antagonistic reaction to the tradition of modernist architecture culture. It is extremely difficult and problematic trying to localize Superstudio's work within a tendency that was looking back at the work of Loos, Hilberseimer, Meyer, Schmidt, to name a few; in fact, we can say that the two factions proposed two completely different approaches to architecture, each one characterized by a contrasting vision of the world.⁴¹⁵ So, while the Radicals ideological propositions were closer to the theories of the avant-garde as outlined by Renato Poggioli⁴¹⁶ and that included strategies of alienation, activism, agonism and decadence, those close to the rational tendency were more interested in a sort of Marxist historicism, intended as a strategy that would propose architectural alternatives more continuous to the social fabric of history.

Besides the idiosyncrasy offered by the work of Superstudio, the other work exposed is pretty consistent to that general ideal of rationality previously expressed in

⁴¹⁴ Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 30.

⁴¹⁵ Peter Lang, "Superstudio's Last Stand: 1972-1978," in *Superstudio: the Middleburg Lectures*, ed. Valentijn Byvanck, (Amsterdam: De Vleeshal and Zeeuws Museum, 2005), 49.

⁴¹⁶ Renato Poggioli, *The Theory of the Avant-Garde*, (Cambridge, MA: The Belknap Press of Harvard University, 1968), 16-18.

the theoretical work of Aymonino, Rossi, and Grassi. The urban proposals of the Gruppo 2-C from Barcelona, which included Carlos Martí and Salvador Terragò among all, was based on an a clear understanding of a series of historical planning proposals such as the Rowira e Trias in 1858, the Cerdà's plan in 1859, Jaussely plan in 1905, Rubió i Tuduri in 1929, Le Corbusier's plan Marcià and the GATEPAC plan in 1933, the comprehensive plan of 1953, and the final revision of the Alacalde Porcioles in 1971. Their proposals were essentially based on the reading of the plan by developmental phases, which highlighted the typological and morphological structure of the postindustrial city. Based on a process underlined by Aymonino in his book *Origini e Sviluppo della Città Moderna*, the Catalan group presents a proposal for the residential area of *Pueblo Nuevo*, which takes into account the relationship between geographic, climatic, and historical elements that determine the physical aspect of the city in a particular zone. In addition to its geographic location, Barcelona is a costal city surrounded by mountain range that defines its physical domain, the work of Gruppo 2-C emphasized the continuity of the existing urban fabric with those persistent historical elements that were mostly developed in those planning proposals mentioned above; thus, their main programmatic idea was based on the establishment of typological and morphological continuity as a way to respect the existing fabric as well as the geographic characteristics of the local territory.⁴¹⁷

⁴¹⁷ Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 29.

The work exposed by the Milan Politecnico was also based on a logical and formal interpretation of the existing urban context in Milan and Pavia (Figures 33, 34). In fact, those projects were driven by a structuralist methodology that proposed an internal reading of the inner structure of the city, intended as distributive and formal structure, in order to produce new solutions. Some of these proposals, completed under the supervision of Giorgio Grassi and Antonio Monestiroli, are very similar for content and form to the studies performed by Saverio Muratori in Venice and Rome in the early 50s. Yet, their finalized scope is not synthesized in the form of a catalog or collection of maps that inform typological and morphological variations like Muratori did, but, instead, it is directed toward an understanding of those typical and dominant architectural and urban elements that define and manipulate the new. Most of the proposals, such as the Porta Venezia residential intervention supervised by Antonio Monestiroli, who served as a teaching assistant under Aldo Rossi, deal with the aspects of new residential living within the existing urban fabric.⁴¹⁸ Essentially, this methodological didactic investigates the search and definition of a formal theory of architecture characterized by a typological classification of forms based on their historical presence and occurrence, as underlined by Giorgio Grassi in his book *La Costruzione Logica dell'Architettura*.⁴¹⁹ Thus, the work at the Politecnico was presented to propose a rational theory of form that involved an analytical classification of

⁴¹⁸ Massimo Ferrari, *Antonio Monestiroli: Opere, progetti, studi di architettura*, (Milano: Electa, 2001), 230.

⁴¹⁹ Giorgio Grassi, *La Costruzione Logica dell'Architettura*, (Milano: Franco Angeli, 2007), 28.

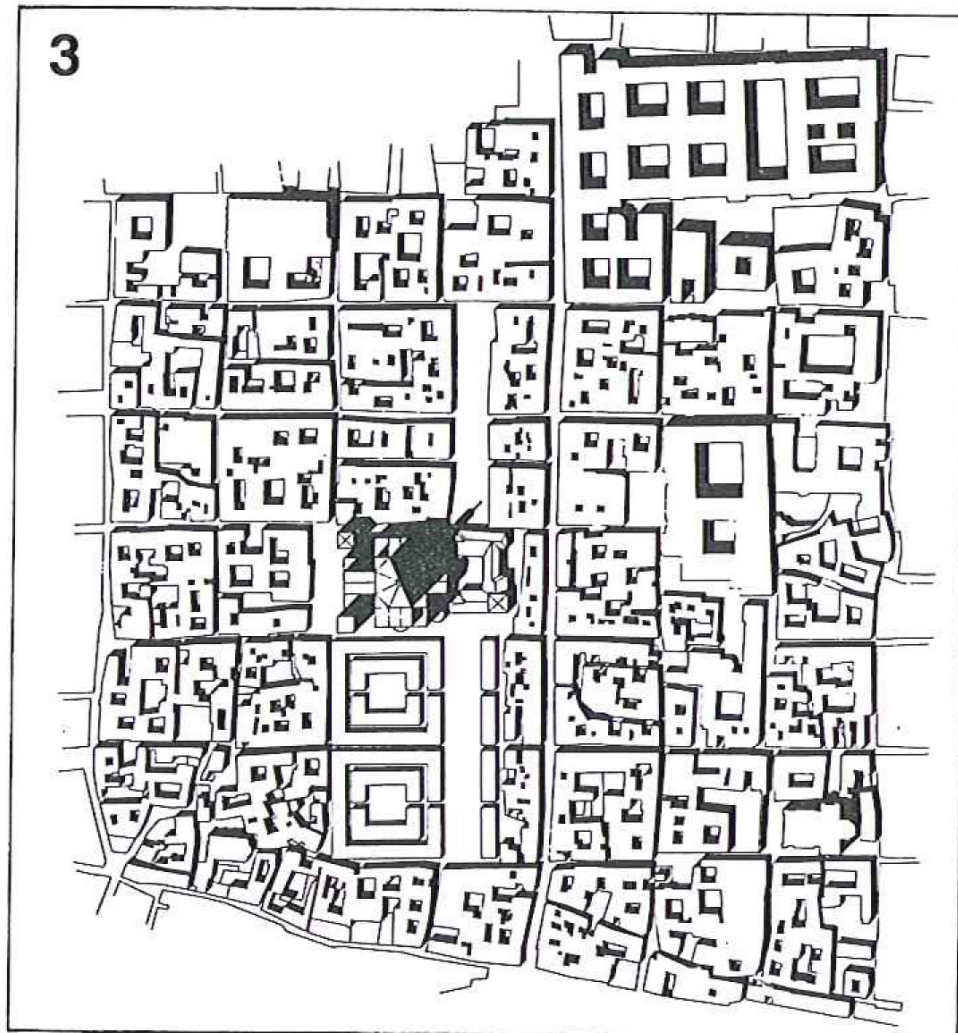


Figure 33. XV Triennale of 1973: Thesis Projects: Pavia. Thesis supervised by Giorgio Grassi. From Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 30.

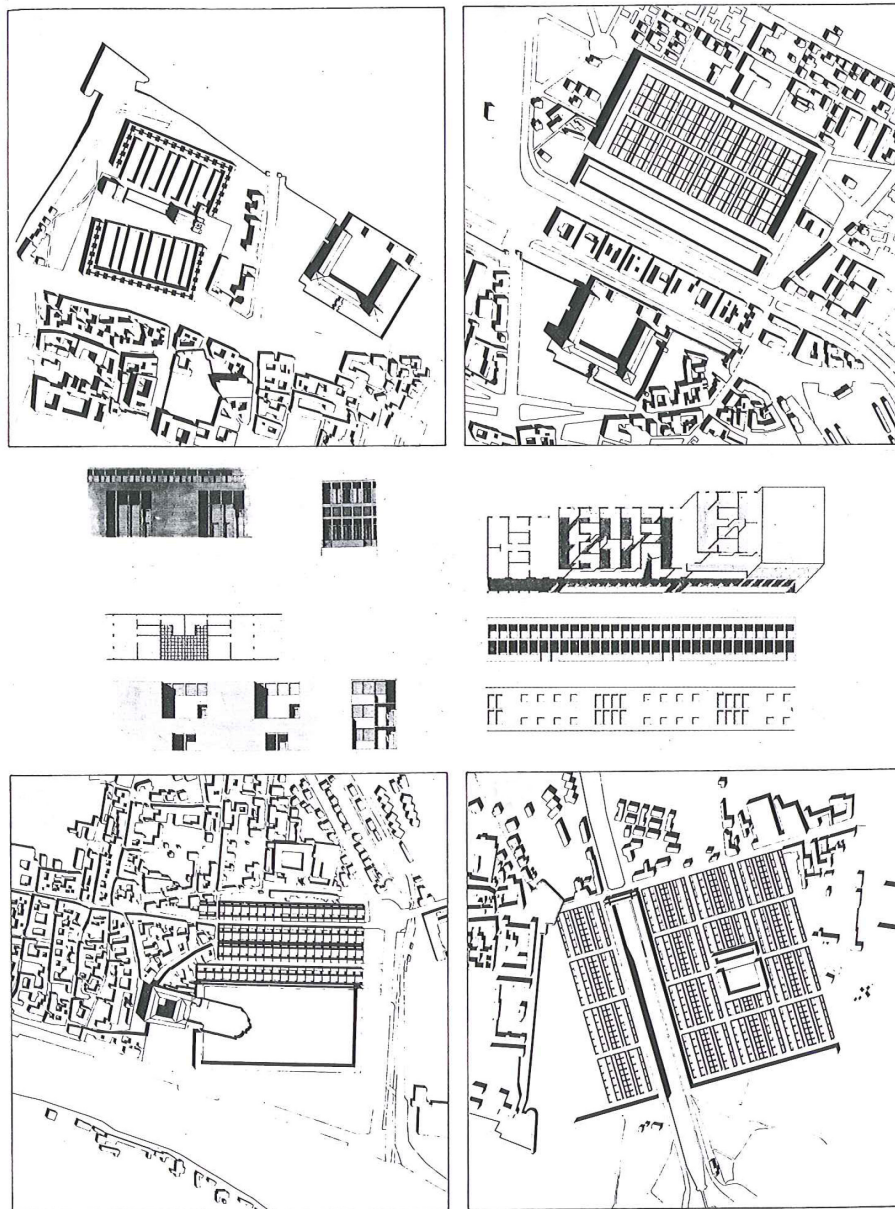


Figure 34. XV Triennale of 1973: Thesis Projects: Pavia. Thesis supervised by Giorgio Grassi. From Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 30.

architectural form and its genealogy, while emphasizing the importance of the existing urban fabric as a catalog of typological formations overtime. Typology is seen as a tangible and material product of a process of urban formation, and it can't be reduced to diagrammatic abstraction because its structure is the result of real urban conditions. The didactic implemented at the Politecnico and exposed at the International section of the XV Triennale is structured by a sort of typological experimentation that offers new solutions while keeping its inner distributive and formal structure consistent with its surroundings. It is important to note that the design process is understood as a verification phase of a methodological discourse dictated by the city and its emerging elements. Design practice, thus, verifies the efficiency and effectiveness of the methodological process, and this, I believe, is one of the most important evaluations proposed by the work of *Tendenza*.

The relationship between residential typology and urban morphology is also analyzed by the Roman group composed by Carlo Aymonino, Raffaele Panella and Costantino Dardi in their proposal for *Roma Est*, which uses architecture as a way to design and finalize the urban plan of the Roman periphery.⁴²⁰ In this case, the overall masterplan is characterized by a combination of typological and infrastructural studies that try to establish a sense of continuity with the inner city. Utopian solutions are immediately discredited as they only offer non-feasible alternatives, while a form of architectural realism is implemented to keep the nature of the plan more relevant to actual problems and less incline to be a generic representation of a system of political

⁴²⁰ Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 45.

governance. Aymonino, Panella and Dardi, refuses the guideline imposed by the local PRG (regulating urban plan), so they offer a solution that looks into the morphological and social structure of the city as a proponent for a new plan (Figure 35). Their refusal of standard planning instruments, too close to a functionalist approach that had indeed created uneven developments, is underlined by a return to architectural scale while looking at the urban scale. Again, the relationship between residential typology and urban morphology generates proposals that stay consistent with the existing fabric, and in *Roma Est*, this represented an affirmative point of confrontation between the center and periphery.⁴²¹

The work of Vittorio Gregotti is framed by a different methodological discourse. As mentioned before in the previous chapter, Gregotti was more interested in defining the relationship between architecture, environment and nature, which he investigated through use of large-scale projects.⁴²² This becomes more evident when we look at his work exhibited in the International section, more specifically, his proposal for the University of Florence, which once again confirms his interest in the pathological and semantic relationship existing between architecture and the landscape, intended as a geographic collection of historical signs.⁴²³ Gregotti's work, although typologically explained, is not consistent with the morphological nature of the site, but instead, based on its massive size, it generates a sense of textural ambiguity and discontinuity with the

⁴²¹ Ibid., 42.

⁴²² Manfredo Tafuri, Francesco Dal Co, *Architettura Contemporanea*, (Milano: Electa, 1976), 359.

⁴²³ Manfredo Tafuri, *History of Italian Architecture, 1944-1985*, (Cambridge, MA: The MIT Press, 1990), 126-127.

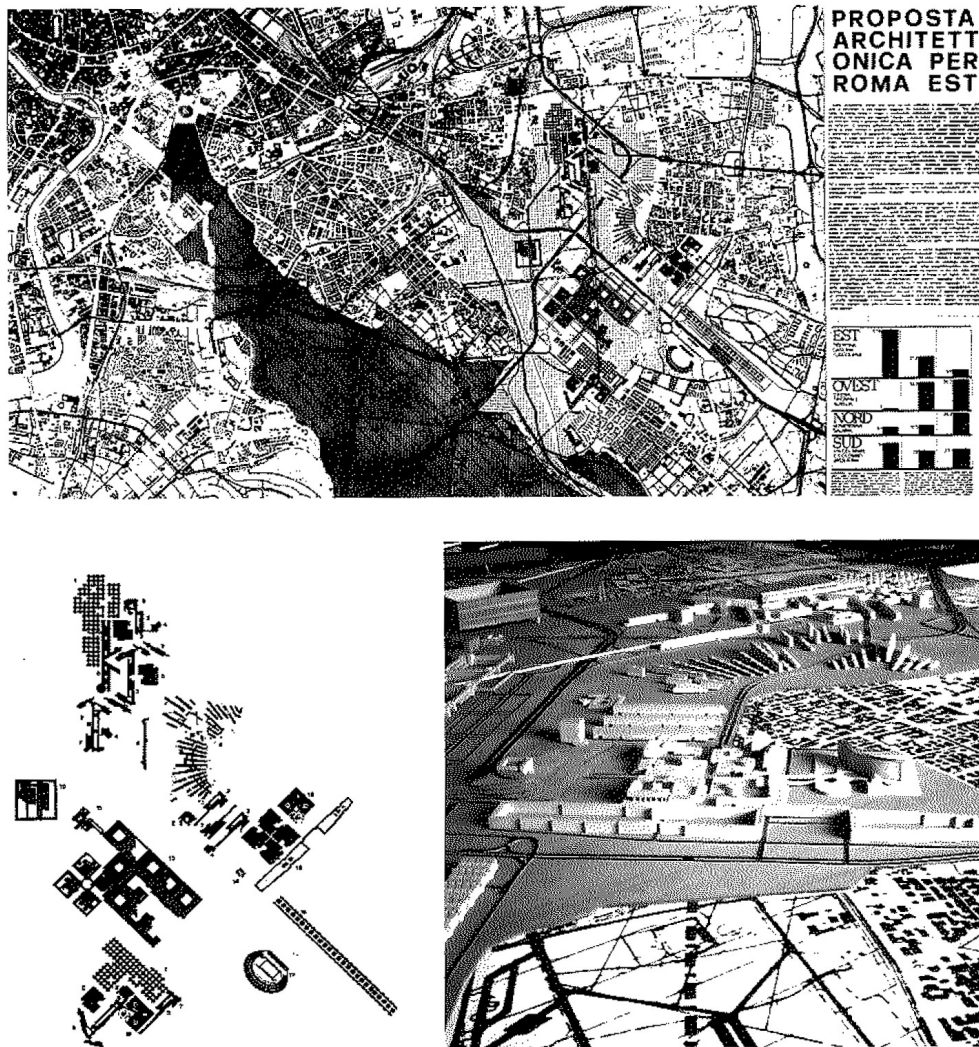


Figure 35. XV Triennale of 1973: Roma Est by Carlo Aymonino. In collaboration with Raffaele Panella, Costantino Dardi. From Federica Visconti, Renato Capozzi, *Architettura Razionale* (Napoli: CLEAN, 2008), 36.

existing fabric. But again, Gregotti is less inclined to the guidelines set by the new rationalist tendency, while he shows more attention to the materiality of architectural historiography, which he replicates by mimesis and not by analogy.⁴²⁴

The work produced by the group lead by Salvatore Bisogni in Naples returns to the permanent dialogue between residential typology and urban morphology. Their urban analysis and proposal deals with a residential area, the Montecalvario, located within the historical center of the city, which houses about one third of Naples' population. This neighborhood was originally planned by the Spaniards in 1536 in order to provide space and shelter for the military troops close to Don Pedro of Toledo. Over the years, this subdivision has gone through major urban consolidations, especially in term of density, which had created an intense system of overlapping urban fabric placed along the hills of the Vomero. The groups' design solution proposed a scheme based on the evolution of a building type characterized by an open central courtyard; the analysis of the existing fabric had also offered a good overview of formative process of this type, creating the perfect methodological framework for a new proposal. This scheme becomes very important toward an understanding of the relationship between historical centers and the rest of the city, which should be based on elements of analysis, description, representation, and expression, without looking for accommodating solutions based on the total removal of those historical parts. Essentially, Bisogni and his group of Neapolitan architects looked for points of departure consistent with the history and morphology of the local urban fabric. Again, this is accomplished by looking at the

⁴²⁴ Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 50.

inner distributive and formal structure of the city, understanding its formative process through typological variations (Figure 36). When the rules are finally laid out, the designer operates his formal choice, but only within a restricted catalog of types and forms as explained by Giorgio Grassi.⁴²⁵ The other work produced by students supervised by Agostino Renna, also in Naples, shows the same structuralist qualities. In fact, the city is analyzed in its parts by exposing its inner distributive structure and the relationship between the urban block and the monuments that are adjacent to it (Figure 37). This didactic elaboration considered the importance of historical analysis as a way to define the typological and formal domain of architecture, which should be analyzed, understood, and represented in order to propose a set of methodological guidelines. All those components suggest a realistic image of the city based on continuity of urban elements that is finally achieved by formally reproducing the order and richness of the historical models collected in the first analytical phase of discovery and classification.

The International section, in its ideological unison based on the architecture of the city, also presented the work of Antonio Monestiroli, Guido Canella, O.M. Ungers, James Gowan, James Stirling, Franco Purini, Uberto Siola, Massimo Scolari, Leon and Rob Krier, Luciano Semerani, Bruno Reichlin and Fabio Reinhart. Monestiroli's design for dwelling units in Feltre analyzes the relationship between residential morphology and urban infrastructures such as roads, highways and waterways. The formal simplicity is

⁴²⁵ Giorgio Grassi, *La Costruzione Logica dell'Architettura*, (Milano: Franco Angeli, 2007), 28.

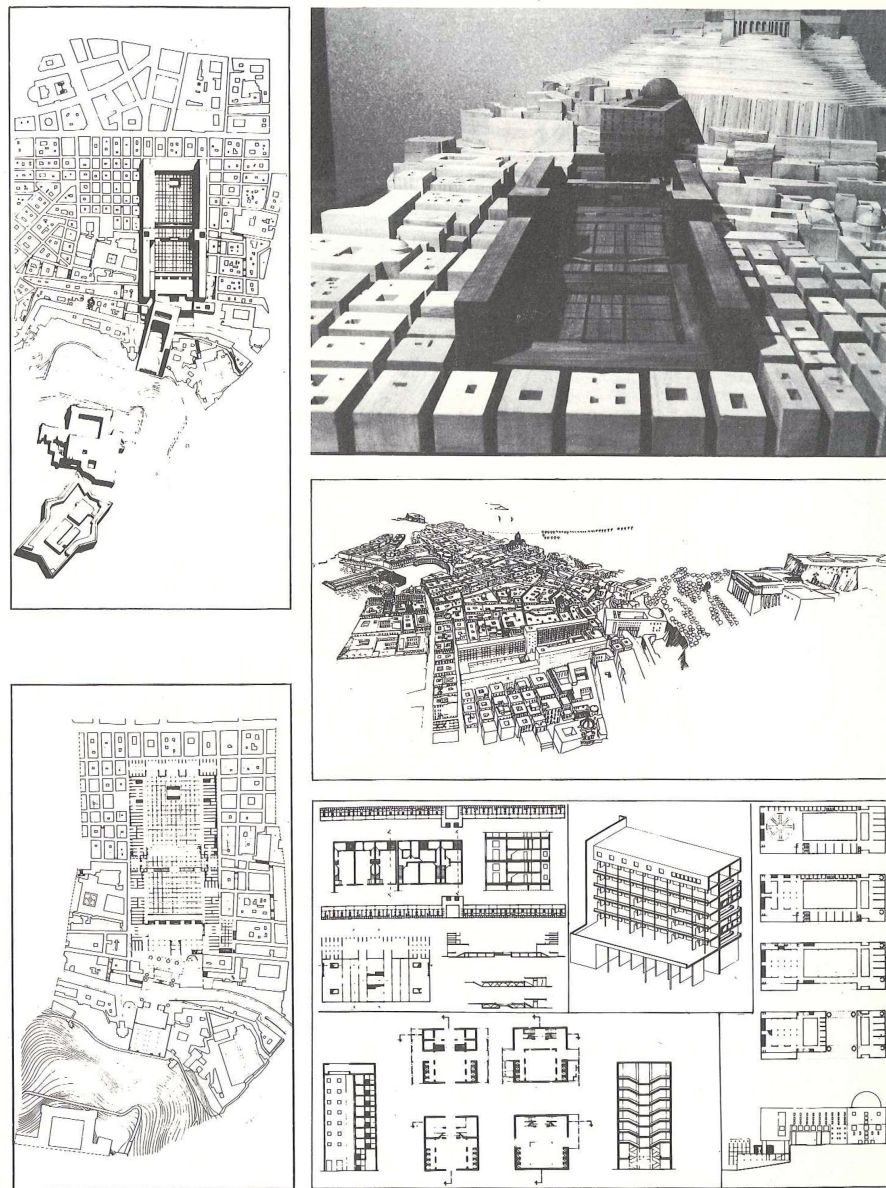


Figure 36. XV Triennale of 1973: Quartiere Montecalvario, Naples. From Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 81.

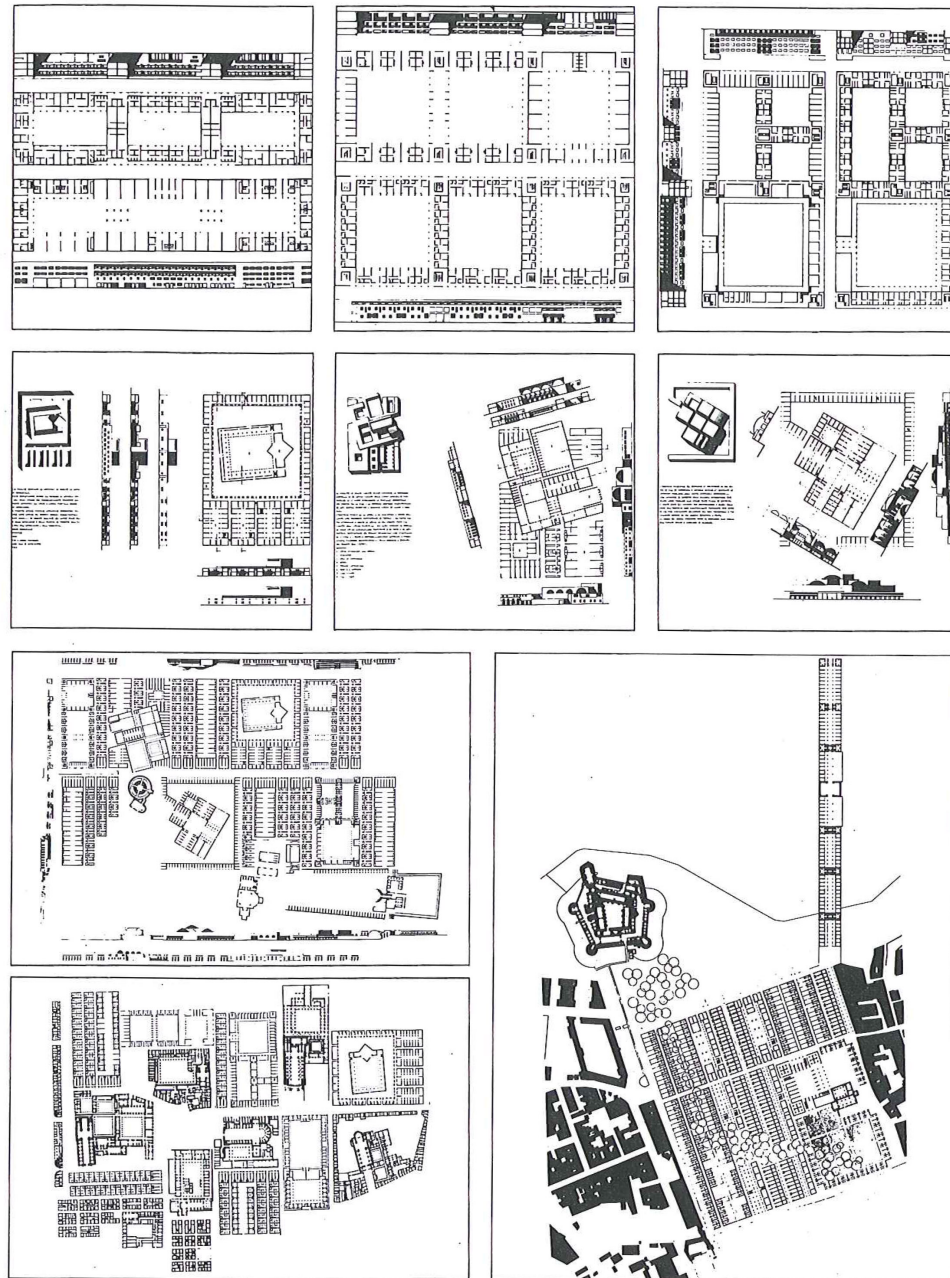


Figure 37. XV Triennale of 1973: The city as a repository of architectural lessons. From Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 81.

once again associated to a typical residential/building type very common in the area; this analytical precedent also establishes a compositive and hierarchical association with an existing day care, a nearby green area, and a public piazza. In his proposal for a high school district in Echternach, Leon Krier designs a system characterized by two high-rise buildings that emerge as a gateway to the rest of the city. While the two towers are used as office space, the lower blocks are utilized as residential spaces designed around a green courtyard. In a way, Leon Krier's intervention sets up the premises of an urban design strategy associated to a morphological definition characterized by mixed-use developments. Rob Krier's proposal for the city of Stuttgart also communicate the specificity of the relationship existing between particular residential types and the overall urban morphology. His plan is essentially characterized by a continuous urban mat that attaches itself to the existing fabric in order to provide continuity, both formally and typologically.

Bruno Reichlin and Fabio Reinhart's proposal for the city of Zurich is also associated to an urban approach based on the individuality and specificity of residential typological formulations. Yet, their proposal uses the design of voids such as public squares, streets, and courtyards as a way to connect the old to the new, while residential typology is only utilized as a compositional armature that is supposed to support such a strategic proposal. Both Reichlin and Reinhart looked at the work of Hilberseimer and the rationalist typological expression of the German *Siedlung*, which in this case is used to link the new residential formation to the rest of the city by providing a consistent amount of urban voids used as garden and community spaces (Figure 38).

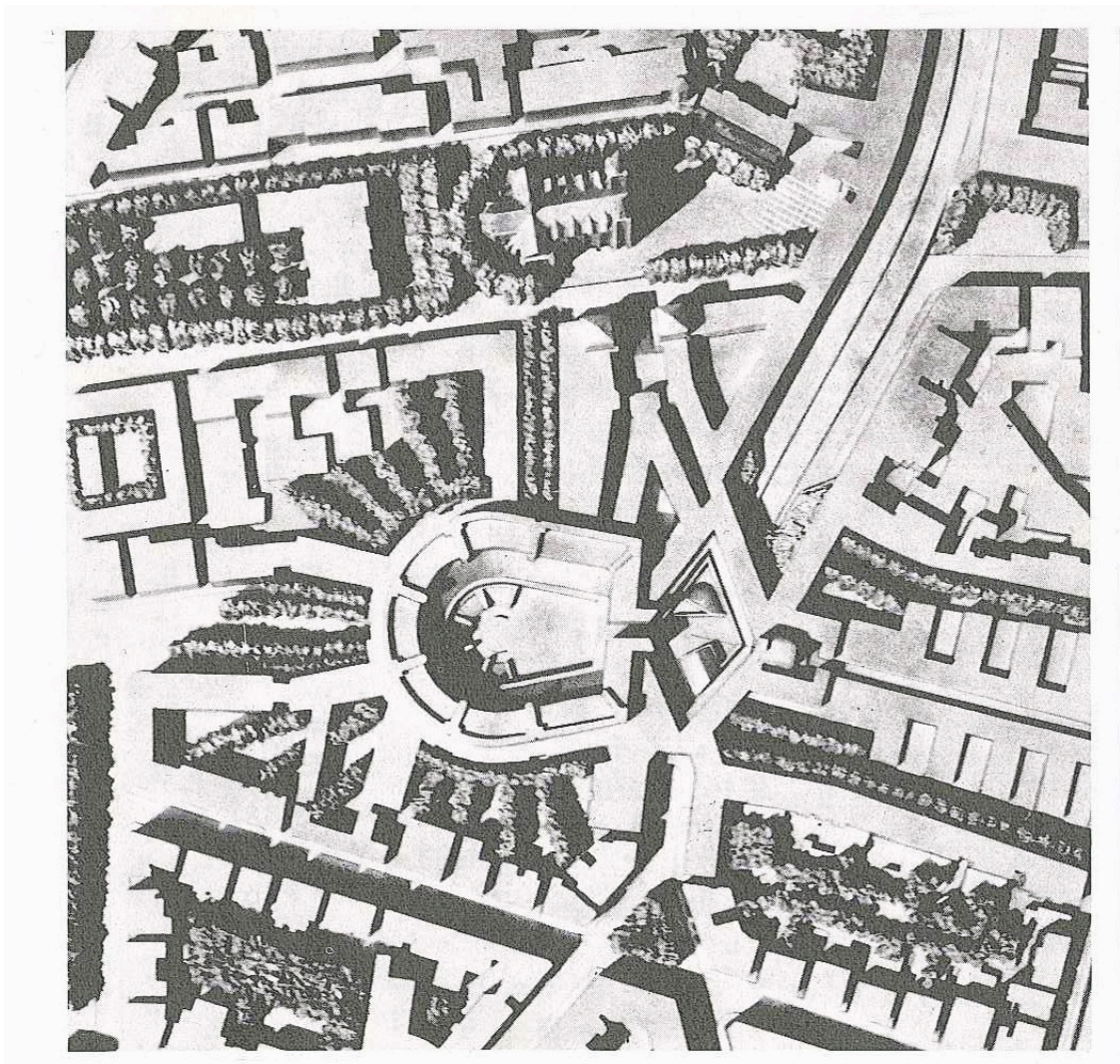


Figure 38. XV Triennale of 1973: A Proposal for the Stadthausanlage, Zurich. From Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 69.

It is quite clear at this point that all these design proposals, although formally heterogeneous, had synthesized the importance of a moment where a tendency, based on the significance of urban analysis and the relationship between residential typology and urban morphology, had finally been consolidated into a comprehensive methodological architectural discourse. Again, although the work of Ungers, Leon and Rob Krier, Bruno Reichlin, and Fabio Reinhart was contextually located internationally, it showed a particular ideological and methodological consistence with the Italian proposals showcased by Polesello, Gregotti, Aymonino, and Fabbri. It is once again important to point out that most of the design proposals exhibited at the International section of the XV Triennale, although formally articulated quite differently, in reality belonged to the same cultural and ideological matrix based on the rational idea of empirical knowledge. As we know, this rational idea had found particular expression in a research process based on urban analysis and architectural contingency as a basic theoretical and methodological principle. In a way, this process favored the dialectic of architectural realism as a tangible design proposition; in fact, the initiative of looking at existing building types as a general process of building analysis established this new operative process based on the studies of real architectural conditions that have to be methodologically understood in order to be manipulated.

Interestingly enough, Aldo Rossi, the mastermind and *deus ex machina* of this exhibition, did not show any of his personal architectural work. In fact, even though he had a qualitatively interesting amount of work delineated by the Gallarate Housing Unit, the San Rocco in collaboration with Giorgio Grassi, and the proposal for the San

Cataldo Modena cemetery, Rossi decided to keep his support merely theoretical and ideological, by presenting a movie titled *Ornamento e Delitto*, produced in collaboration with Gianni Braghieri, Franco Raggi, and the filmmaker Luigi Durissi.⁴²⁶

The movie was structurally composed and articulated around four different classics, *Senso* by Luchino Visconti, *Otto e Mezzo* and *Roma* by Federico Fellini, and *Senilità* by Mauro Bolognini, which were used to support photographs of rational architecture works exhibited at the Triennale such as Loos' Michaelerplatz building, as well as images from the Milanese industrial periphery captured by Rossi and Durissi and commented by the writings of Adolf Loos, Walter Benjamin, Karl Marx, and Hans Schmidt.⁴²⁷ The documentary in essence underlines the theoretical and ideological persistence of historical tradition and architectural realism, which was one of the primary factors in assembling the International section of the XV Triennale. Interestingly enough, the documentary opened and closed with Walter Benjamin's famous phrase "*I am unquestionable deformed by relationships with everything that surrounds me,*"⁴²⁸ which represented one of the points of departure of Rossi's methodology based on recurrent memories and significant collective urban spaces. Thus, everything is related to the remembrance of a particular event where memory, poetry, and imagery all together evoke the persistence of a certain typological and formal archetype. The process of analogy allowed Rossi to find and define history in a different way. In fact, history is not

⁴²⁶ See, Luca Skansi, "Ornamento e delitto: un film di Aldo Rossi, Gianni Braghieri, Franco Raggi," in *La Lezione di Aldo Rossi*, ed. Annalisa Trentin, (Bologna: Bononia University Press, 2008), 261.

⁴²⁷ Ibid., 262.

⁴²⁸ Walter Benjamin, *The Origins of German Tragic Drama*, (New York: Verso, 2003).

a static certainty, but it becomes a series of things, of affective objects, that can be used during the design process. This method is again informed by Walter Benjamin's quotation and its unquestionable reference to cultural and historical contexts. Once again, we can recognize Rossi's ability of rarefaction of mnemonic elements that keep coming back within compositions or components. Sometimes those elements are deformed, yet they still recall those familiar elements that once surrounded us.

The same nostalgic proposition is also articulated in Arduino Cantafora's collage *La Città Analoga* (Figure 39), prepared for and exposed at the XV Triennale, which essentially represented Rossi's figurative and analogous understanding of the city and its architectural components.⁴²⁹ This concept is quite interesting as it proposes a descriptive strategy based on the association of fantastic and utopian scenarios characterized by real architecture displaced in time. The idea of an analogous city was also addressed by Ezio Bonfanti, who, in his famous essay on the methodological work of Aldo Rossi appeared on *Controspazio*, stated that:

*Il momento di sintesi tra teoria delle scelte, analisi urbana, procedimento analitico additivo, e rappresenta anche il tentativo di trasferire su di un piano di sempre minore arbitrarietà il rapporto tra logica e immaginazione da cui eravamo partiti.*⁴³⁰

⁴²⁹ Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 58.

⁴³⁰ It represents the moment of synthesis between a theoretical choice, urban analysis, the analytical-additive process, and also it represents an attempt to transfer on a plan less and less arbitrary the relationship between logic and imagination from which we started; (my translation), from Ezio Bonfanti, "Elementi e Costruzione: Note sull'Architettura di Aldo Rossi," in *Controspazio*, n.10, (October, 1970), 26-27.

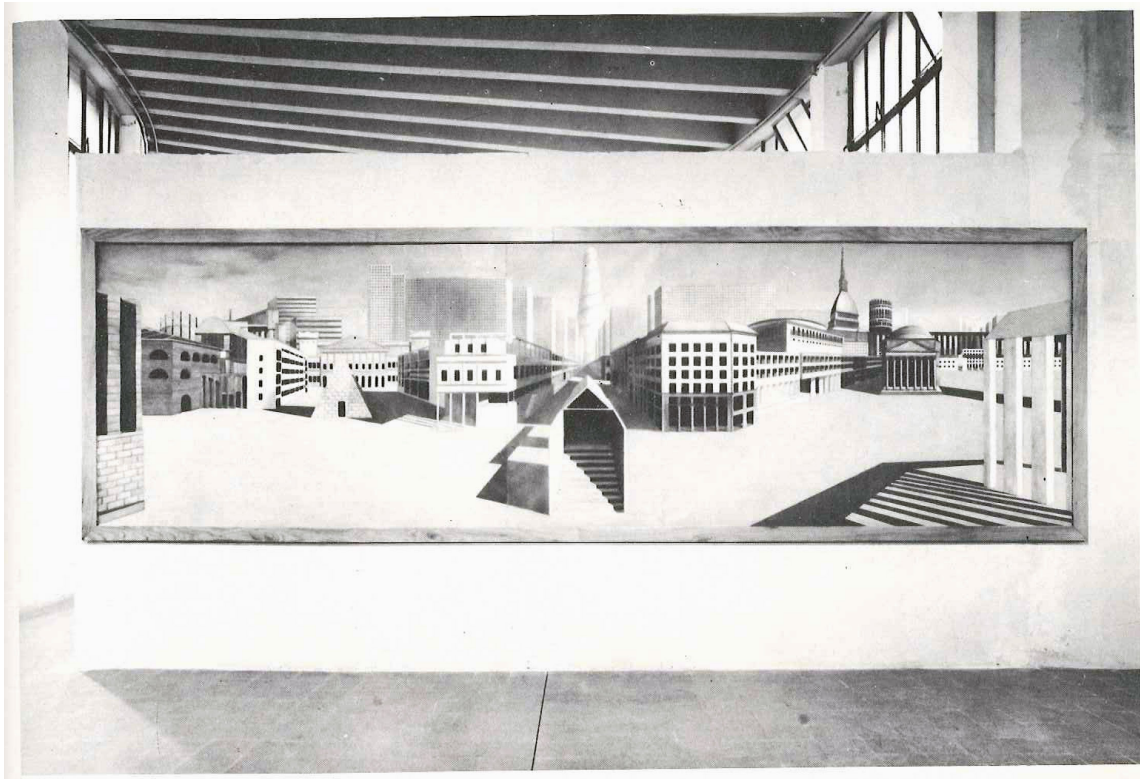


Figure 39. XV Triennale of 1973: *La Città Analoga*, by Arduino Cantafora. From Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 63.

Thus, the analogous city becomes the symbolic representation of those *fatti urbani* (urban events), which are characterized by their specific significance, typomorphological essence, and historical correlation. All those components are found in the seamless composition of old architectures, which Cantafora recognizes in the Mole Antonelliana in Turin or the Pantheon in Rome, and new architectures such as the Gallarate in Milan, the Monumento ai Partigiani and the Segrate's fountain in Segrate or Loos's Michaelerplatz building in Vienna. This method of placing built and non-built work created an analogous urbanity, a representation of a pseudo reality that contained elements related to both the history of architecture and the city itself. This concept has been further elaborated in the spirit of analogy toward the predicaments of an analogical architecture based on the notion that:

*Logical thought is what is expressed in words directed toward the outside world in the form of discourse.' Analogical' thought is sensed yet unreal, imagined yet silent; it is not a discourse but rather a meditation on themes of the past, an interior monologue.*⁴³¹

This definition is very important as it gives us a new understanding and sense of history conceived as a series of things, of affective values to be used as design tool. Thus, architecture can be understood as a practice dominated by a wide range of associations, correspondences, and analogies. However, although this process produces work mainly defined by a form of geometrical or volumetric purism, clear in the work of Rossi and Grassi, it also evolves and it absorbs this idea that the project has its own individuality, which is relative to the context.

⁴³¹ Aldo Rossi, *Aldo Rossi in America 1976-1979*, (Cambridge, MA: The MIT Press, 1980), 6.

This notion provides new alternatives and new methodologies “questionably deformed” by those things that surround the architect. There is then a clear pattern, or series of patterns that follow particularly the work of Rossi and that sometimes have overlapped to the point of total annihilation. Such a process becomes a machine that produces rarefaction and deformation of archetypes. Those archetypes are situated between inventory and memory, and they are eventually transformed into autobiographical experiences. Things and places might change, and new meanings, analogous at most, are produced as a result of this process.

This is exactly what happened to the San Cataldo Modena cemetery where, during and after the design process, the original solution becomes an analogous of the final product delivered. New meanings came out, mostly based on particular personal events that happened to Rossi, and, consequently, new explorations of form took part into the design process.⁴³² Analogical thinking, then, is what helps us defining a general theory of mental association in which every idea has a relation of resemblance with a particular mental state or mental experience. Particularly, in Rossi’s case, this correspondence has to be found within the multi-layered reading of the urban fabric and its multiple and overlapping building types. Thus, what Bergson calls a “*common genus*”⁴³³ is nothing but a close association between different buildings that share the same elements of structural formation (distributive characters). So, every design

⁴³² In 1971, Rossi was involved in a serious car accident that forced him in bed with broken bones; during his hospital stay, Rossi realized that morphological alterations can reassemble a series of urban fractures; see Aldo Rossi, *A Scientific Autobiography*, (Cambridge, MA: The MIT Press, 1981), 11.

⁴³³ Henri Bergson, *Matter and Memory*, (New York: Zone Books, 1991), 163.

propositions becomes the synthesis of multiple elements that contain a common genus or what can be recognized as a continuity of form and perception.

Interestingly enough, within the organization of the International section of the XV Triennale, Cantafora's collage was strategically placed at the end of the exhibition, and it concluded a retrospective whose main ideological articulation was the creation of a cultural and intellectual movement that unified and merged heterogeneous methodologies under one big umbrella: that of rational architecture.⁴³⁴ However, while Rossi, Aymonino, Dardi, Portoghesi, Siola, and Bonicalzi had talked about a methodological *tendenza* (tendency) characterized by a rational and typological approach,⁴³⁵ *La Tendenza*, intended as a well-defined and distinctive movement identifiable in a particular ideological group of architects, did not manifest itself until Scolari's manifesto *Avanguardia e Nuova Architettura*, Avant-Garde and new Architecture, which was published in the book *Architettura Razionale* after the exhibition closed on November 20th 1973, and which asked for the necessity of a treatise that, based on those theoretical proponents underlined by Rossi's International section, that would particularly acknowledge the general rules of architectural design.⁴³⁶

⁴³⁴ Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 60.

⁴³⁵ See "Discussione sulla Triennale," in *Controspazio*, n.6, (December, 1973), 89-92.

⁴³⁶ Massimo Scolari, "Avanguardia e Nuova Architettura," in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 153; also in K. Michael Hays, *Architecture Theory since 1968*, (Cambridge, MA: The MIT Press, 2000), 124-145.

Avant-Garde and New Architecture: *La Tendenza*

*Nowadays, there is no architecture, only buildings and architects. Architecture, except in rare cases, is a plaything of imagination, a clever combination of forms, a game of pencils, compasses, lines and squares.*⁴³⁷

Camillo Boito

Scolari's theoretical work was another important component of the International section of the XV Triennale XV. Massimo Scolari had graduated from the Politecnico in Milan in 1969. Shortly after, he began working for Aldo Rossi and teaching part-time at the University of Palermo. Although his participation to the exhibit of the International section *Architettura-Città* was mainly characterized by a series of sketches and watercolors,⁴³⁸ it is Scolari's theoretical work, and most specifically his opening manifesto for the XV Triennale, which has to be understood as the beginning and legitimization of *Tendenza*. Scolari perceives the situation of contemporary Italian architecture similarly to Boito's opening remarks to the book *Architettura del Medioevo in Italia*, published in 1880. To react to this confuse situation, he brings up the cognitive nature of architecture. In fact, for Scolari, architecture is not a pure representation of some historical condition or utopia, but it is a reasoning process that refuses interdisciplinary solutions to its own crisis.⁴³⁹

⁴³⁷ Camillo Boito, "Sullo stile futuro dell'architettura in Italia," in *Architettura del Medioevo in Italia*, (Milan, 1880).

⁴³⁸ Rosario Bonicalzi, Uberto Siola, "Architettura e Ragione," in *Controspazio*, n.6, (December, 1973), 62.

⁴³⁹ Massimo Scolari, "Avanguardia e Nuova Architettura," in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 156.

Most importantly, Scolari supports the distancing from utopian radicalism, which he sees formally and ideologically expressed in the work of Superstudio, Archizoom, and 9999, and that had to be primarily blamed for its negative connotation of historical analysis. This characteristic certainly isolated the radicals' work from the reality of things, proposing utopias as a non-feasible solution.⁴⁴⁰ In fact, Scolari explains that groups like Superstudio or Archizoom pursued purely cultural prefigurations rather than a structural approach based on scientific research that reduced the production of those groups to a pseudo-architectural metaphor that was not grounded at all. Architecture, in the end, has to reflect on its own internally generated laws or norms and it has to express and display itself through an architectural representation based on typological analysis as a process of methodological clarification.

Scolari recognizes this procedural attitude in what he calls *Tendenza*, a heterogeneous group of architects interested in those scientific cognitive methods that offered an historical and formal analysis of the city as a collection of urban artifacts. Therefore, Scolari states that the *Tendenza* perceives architecture is a mental process that underlines the existence of it as an autonomous discipline with its own rules, history, and forms.⁴⁴¹ The importance of the masters of early modernism is also emphasized in the methodological and ideological work of Ernesto Rogers, Giuseppe Samonà, and Ludovico Quaroni, who defined the intellectual playground of *Tendenza*. While Samonà and Quaroni highlight the importance of urban analysis, Roger underlines the significance of historical continuity as a way to continues the tradition of early

⁴⁴⁰ Ibid., 158.

⁴⁴¹ Ibid., 131.

modernism. Within this group of masters, Rossi, Canella, and Grassi develop a personal understanding of the processual relationship between analysis and design, and residential typology and urban morphology. This intellectual research will be consolidated within the academic institutions of Milan, Venice, Naples, and Pescara, under the respective supervision of Rossi, Aymonino, Bisogni, Siola, and Grassi. Most importantly, this procedural consistency denied any sort of formal ambiguity by proposing a repertoire based on a rigorist reductionism that was also emphasized by Paolo Portoghesi in his editorial to *Controspazio* “*Città dei vivi e città dei morti.*”⁴⁴²

This methodological rationality was also dictated by a common intellectual and political background that had underlined particular problems within Italian architecture culture. In fact, Scolari refers to a disciplinary autonomy as a way to isolate generic forms of academism; additionally, he sees extreme architectural professionalism as a way to deny architecture’s own intellectual matrix. To eradicate those two problems, Scolari proposes a comprehensive refunding of the discipline, which he foresees in the methodological work of *Tendenza* that, according to Scolari, refuses any political or technocratic intrusion.⁴⁴³ The beginning of this tendency is recognized in the early work of Rogers at *Casabella*, and Muratori at the IUAV, who had advocated a return to architecture’s own analytical and cognitive processes, a position also emphasized by Giuseppe Samonà, Franco Albini, and Piero Bottoni.

Thus, the understanding of architecture as a cognitive process is translated into a discourse that emphasizes the logic of types and typological thinking as a possibility for

⁴⁴² Paolo Portoghesi, “Città dei vivi e città dei morti,” in *Controspazio*, n. 10, (1972), 2-3,

⁴⁴³ Carlo Manzo, “Per un Architettura di Tendenza,” in *Controspazio*, n.6, (December, 1973), 95.

new architectures. Interestingly enough, other contemporary architectural historians such as Bruno Zevi and Christian Norberg-Schultz could not fully explain the misery of Italian architecture, and while Zevi avoids talking about the present retreating into a redundant organicism, Norberg-Schultz relies too much on phenomenological thinking as way to establish new methodological directions, perhaps too rhetorical.

For Scolari, the only way to avoid secular functionalism and extreme “organicism” is the return to the basic rules of architecture, which he recognizes into the work of Aldo Rossi, symbol of the new Italian architecture (*Tendenza*) characterized by a clear process of essentialization.⁴⁴⁴ In fact, Rossi recognizes the presence of types and models that repeats through history and that modifies the structure of the city. This process was addressed in *The Architecture of the City*, where Rossi exposed the architectural essence of monuments and their importance on the formation and consolidation of what he called *fatti urbani*, urban events.⁴⁴⁵ Scolari uses this definition as a way to set up the formal basis of urban architecture; however, by doing so, he offers an ambiguous proposition based on possible stylistic results. The Rossian’s idea of monuments as urban catalyst of form was not necessarily understood as a way to replicate the identity of an existing building, but it was seen as a possibility for typological continuity through the presence of particular signs (types) that link past and present, life and society, and which morphologically revolve around monuments.

⁴⁴⁴ Massimo Scolari, “Avanguardia e Nuova Architettura,” in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 170.

⁴⁴⁵ Aldo Rossi, *L’Architettura della Città*, (Torino: CittàStudi, 2004), 21.

Scolari concludes his essay by talking about elements/tools such as history, monuments, and types. The relation to history is considered within the object/background scenario. We operate within the city where artifacts underline the presence of a certain historical timeline. Within this context, we must first observe the recurrence of types that keep repeating, and then reformulate them within the system. As we know, types can be rationalized and reduced to form. The concept of monumentality is based on the inner necessity for an artifact to emerge as a symbol of definite urban phenomena. History, type, and monuments are thus the most important elements that should define the nature of a methodological design process. The rules that define the assembling and composition of these elements within a design process are then defined by a general theory of architecture, which mediates historicity with authenticity by proposing an method based on the design by parts and fragments, very typical of Rossi's approach to the problem of architectural design.⁴⁴⁶

Thus, this chapter has proposed a comprehensive analysis of the intellectual and ideological work presented at the International section of the XV Milan Triennale in order to understand the complexity of a discourse that had originated from the early writings and work of Ernesto Nathan Rogers, and that had exponentially evolved under the guidelines set by Giuseppe Samonà, Ludovico Quaroni, Saverio Muratori, Aldo Rossi, Giorgio Grassi, and Carlo Aymonino. The Triennale of 1973 and its section *Architettura-Città* indeed represented a significant point of processual arrival that synthesized the continuous analytical and methodological research process based on a

⁴⁴⁶ Massimo Scolari, "Avanguardia e Nuova Architettura," in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 184-85.

deep understanding of the city and its typological and morphological structure. Yet, it also symbolized a point of departure for a new architectural practice based on the autonomous proposition of form and function, and the development of a rational methodology that could reassess the importance a methodological return to the analytical and typological explorations of *Tendenza* as a way to overcome disciplinary confusion.

The framework analyzed has particularly showed a consistency of processes while keeping a very diverse formal explication. In fact, while the work of Rossi, Grassi, Aymonino, just to name a few, was based on the same analytical thematics, their buildings showed quite a different expression of forms and contents. If we look at the Gallarate Housing complex by Carlo Aymonino in collaboration with Aldo Rossi, who designed a smaller wing of it, we can clearly notice formal and material differences based on the aesthetic interpretation of a specific residential building type, typical of Milanese architecture: *casa a ballatoio*, a long balcony or corridor leading onto a number of flats, usually overlooking a courtyard (Figure 40). In fact, while Aymonino's solution is quite formally expressive and volumetrically articulated, Rossi's lives in a sort of silent relationship with its contextual companion, while returning to the pure forms and volumes of the architecture of both Boullée and Ledoux. Yet, the importance of the Triennale as an exhibition symptomatic of a new tendency has to be seen within a socio-political framework in which the figure of the architect appeared to be closer to a sort of anti-rhetorical approach that wanted to target real problems and tangible issues. It is also important to remember that the exhibition highlighted the overall importance of the architectural object and its urban connotations through an analysis of particular



Figure 40. Gallarate Housing Complex. Dichotomy between Rossi's complex (on the left) VS Aymonino's complex (on the right); (image by author).

typological and morphological artifacts. Within this framework, the idea of a methodological system based on logical proponents did not stop in 1973, but it continued its ideological and methodological impasse by fueling contemporary architectural production in so many different ways by legitimizing, unintentionally I shall add, the premises of Post-Modernist and early architectural Deconstructivist thinking (Peter Eisenman). Therefore, in the next and final chapter, I will take upon an analysis of those future manifestations of this rational methodology, and its ramifications into Post-Modern and contemporary architectural culture, trying to keep in mind the significance of the historical and methodological work of *Tendenza* and the premises set by the International section of the XV Milan Triennale of 1973 that culturally and ideologically represented both a point of arrival and a point of departure.

CHAPTER VII

CONCLUSION

“There is a moment (though not always) in research when all the pieces begin to fall into place, as in a jug-saw puzzle. But unlike the jig-saw puzzle, where all the pieces are near at hand and only one figure can be assembled, in research only some of the pieces are available, and theoretically more than one figure can be made from them.”⁴⁴⁷

Adriano Prosperi

Post XV Triennale: Intellectual Articulations and Legacy

Even though the XV Triennale had closed its doors in November of 1973, its intellectual and methodological influence remained quite persistent for the years to come. The International section organized by Aldo Rossi Massimo Scolari, Franco Raggi, Rosaldo Bonicalzi, Gianni Braghieri, and Daniele Vitale had showed a consistent organizational and intellectual framework, yet it was also the more criticized section within the Triennale of 1973. Articles by Andrea Branzi, Bruno Zevi, Joseph Rykwert, Giovanni Koenig, and Manfredo Tafuri had in fact underlined the historical conservatism and the formal inhibitions of the work exhibited, particularly guilty of a strong and explicit association with Marxist ideology.⁴⁴⁸ It is also true that the International section was rightly accountable for most of the criticism received generally

⁴⁴⁷ Adriano Prosperi, *Giochi di Pazienza: Un Seminario sul Beneficio di Cristo* (Torino: Einaudi, 1975).

⁴⁴⁸ See Andrea Branzi, “Si scopron le tombe,” in *Casabella*, n.382, (1973), 10-11; Bruno Zevi, “Prendi l’architetto e buttalo via,” in *L’Espresso*, n.41, (October, 1973); Joseph Rykwert, “XV Triennale di Milano,” in *Domus*, n.530, (1974), 2-15; Giovanni Koenig, “Una lettera sull’accademismo della cosiddetta architettura Razionale,” in *L’Architettura Cronache e Storia*, n.8, (December, 1973), 456-457; Manfredo Tafuri, *Storia dell’Architettura Italiana 1944-1985*, (Torino: Einaudi, 1986), 174. Particularly, Bruno Zevi in his article blamed Rossi to organize an exhibition full of “*sconcezze Staliniane*,” literally, Stalinian monstrosities.

because of its strong ties to a traditional historicism, but this sort of criticism missed the most important point of the exhibition, which was indeed organized to show the persistence of a common tendency and its diverse formal outcomes. We can certainly disagree about the political and ideological implications of the exhibition organized by Rossi and his collaborators, who were all associated to the communist party,⁴⁴⁹ but again the International section of the XV Triennale did offer a good description of a new methodological position that was developing in Italy, Europe and worldwide.⁴⁵⁰ It also represented a way to offer a dialectic and disciplinary comparison of intellectual and didactic approaches that would offer basic information about the design process and its relationship with its urban context.

For this specific reason, those architects related to a sort of professionalism and pedantic academism were left out of Rossi's section just because they could not offer a realistic methodological alternative but only extremely pragmatic certainties. Thus, the exhibition had to be understood as an operative critique to the architecture culture of the 60s and 70s, which according to Rossi was victim of an antiquated technocratic system implemented by conservative political subculture. It is important to emphasize, once again, the establishment of an architectural practice based on the constant elements of architecture: historical tradition and the city with its types; those terms were analyzed and defined differently by all the participants, and, as a result, the International section of the XV Triennale became the best representation of a processual condition that had

⁴⁴⁹ Federica Visconti, Renato Capozzi, *Architettura Razionale* (Napoli: CLEAN, 2008), 30-31.

⁴⁵⁰ Aldo Rossi, "Perché ho fatto la mostra di architettura alla Triennale," in *Controspazio*, n.6, (December, 1973), 8.

been establishing worldwide. Moreover, it was also the conclusive point of an analytical research that, in its disciplinary foundations, had tried to establish continuity not only with the early masters of modernism and the protorationalists, but also with the architects of the Renaissance and Enlightenment, showing a consistent methodological line of work that unfolded over centuries of architectural history. Yet, this process of historical analysis had developed an ideological project that was supposed to redefine the methodological ground of architecture; this was accomplished by proposing a positivist attitude based on analytical research, rationalism as a way to set the rules of design, and realism as a way to associate architecture with its tangible background, the city. Thus, the establishment of this framework generated the origins of an intellectual discourse based on the relationship between analysis and design, architecture and ideology, and rationality and invention.⁴⁵¹ A tendency was then constituted when description, manipulation, expression, and representation of invention and knowledge were assimilated in a common desire for a coherent method. This tendency was also legitimized by a general necessity to establish a discourse based on the principles of rationality and logic that underline the architectural process and its formative and generative production.

Thus, my doctoral work has tried to shed light on the idea of a rational tendency and the years of incredible architectural production subsequent to it by recognizing a complex matrix of historical and intellectual associations and demonstrations that have validated and legitimized that discourse based on an understanding of the city and its

⁴⁵¹ Aldo Rossi, "L'obiettivo della nostra ricerca," in *L'Analisi Urbana e la Progettazione Architettonica*, (Milano: CLUP, 1970), 13-20.

architecture. But, before concluding the articulation of my work, I believe that it is opportune to project the experiences of *Tendenza* into a more contemporary scenario in order to offer a more comprehensive understanding of its intellectual and methodological propositions.

In order to truly understand the significance and cultural leverage of the XV Triennale and its post-exhibition intellectual legacy on the discipline of architecture, I believe that it is necessary to look at the evolution of the work of Rossi, Aymonino, Grassi, Monestiroli, and the New York Five to emphasize the possibility for a methodology that has formally and analytically evolved, but that has also remained consistent and entrenched into a clear rationalist approach. Aldo Rossi was unquestionably the mastermind and ideological director of the international section of the Triennale of 1973.⁴⁵² While already widely recognized for his role played in organizing the 13th Triennale of 1964 in collaboration with Luca Meda, and for the urban organization of the Piazza in Segrate, the Gallarate housing complex, and the San Cataldo cemetery in Modena, Rossi continued his booming path with a number of successful buildings such as the Elementary School in Fagnano Olona, the Middle School in Broni, the town hall of Borgoricco, the Teatro del Mondo in Venice, but also theoretical projects such as the *Città Analoga* presented at the Venice Biennale in 1976 and the *Teatrino Scientifico* in 1978, and his final publication, *Autobiografia Scientifica* (A Scientific Autobiography) in 1981, which outlined a more mature process based on

⁴⁵² Federica Visconti, Renato Capozzi, *Architettura Razionale* (Napoli: CLEAN, 2008).

the recollection of significant fragments, memories, and the power of forgotten events.⁴⁵³ However, back in 1975, Rossi had also started an intellectual collaboration with *Oppositions*, the journal of the New York based Institute for Architecture and Urban Studies directed by Peter Eisenman, Mario Gandelsonas, Kenneth Frampton and Anthony Vidler, which had started addressing the importance of Rossi's tendency and theoretical contribution to American architecture culture by publishing several articles and essays relative to the project of *Tendenza* and the European theory close to the Marxist Frankfurt school of thought.⁴⁵⁴ After receiving the notable Pritzker Price in 1990, Rossi continued his practice incessantly, working in New York, Paris, Tokyo, Orlando, Berlin, and teaching at several U.S. universities, including Yale, Cornell, and Cooper Union, although his theoretical production will decrease notably, mostly because of his incredible and stressful workload that had absorbed him into the current architectural star system, a fad that was also addressed by Carlo Aymonino in a well-known interview published in 2008 in which he stated that Rossi was literally exhausted.⁴⁵⁵ Rossi passed away in 1997 in a car crash near Como in Italy leaving a considerable didactic and professional legacy behind him. Of the other members of the so-called *Tendenza*, only Carlo Aymonino, Antonio Monestiroli, and Giorgio Grassi will produce consistently while the other members and strict collaborators of Rossi for the

⁴⁵³ Alberto Ferlenga, *Aldo Rossi: 1959-1987*, (Milano: Electa, 1996), 7.

⁴⁵⁴ See Manfredo Tafuri, "L'architecture dans le Boudoir: the language of criticism and the criticism of language," in *Oppositions*, n.3, (1975), 42-46; Rafael Moneo, "Aldo Rossi: the idea of architecture and the Modena cemetery," in *Oppositions*, n.5, (1976), 1-30; Jorge Silvetti, "The Beauty of shadow," in *Oppositions*, n.9, (1977), 43-61; Francesco Dal Co, "Criticism and Design. For Vittorio Savi and Aldo Rossi," in *Oppositions*, n.13, (1978), 1-16.

⁴⁵⁵ Federica Visconti, Renato Capozzi, *Architettura Razionale* (Napoli: CLEAN, 2008), 31

XV Triennale will retreat to academia. In fact, Carlo Aymonino will continue his interest for the origins and developments of the modern city by publishing *La Città di Padova: Saggio di Analisi Urbana* in 1970, and *Il Significato della Città* in 1975, and by consolidating his research on urban studies with the Gruppo Architettura at the IUAV in Venice.⁴⁵⁶ Aymonino will continue designing buildings with a very distinctive formal rigor such as in the Palazzo di Giustizia in Ferrara in 1977, the Campus Scolastico Superiore di Pesaro completed in 1984, and the Theater of Avellino in 1987; in addition to his professional practice, he also covered the role of administrative city councilor for the future developments and interventions in the historical center in Rome from 1981 till 1985. Aymonino published a few books on the issues of urban design and public spaces such as *Piazze d'Italia* in 1988, *Progettare Roma Capitale* in 1990, *Il Campidoglio di Carlo Aymonino*, and a collection of personal drawings in 2000, while most of his professional work will remain committed and dedicated to urban analysis and planning proposals; Aymonino stayed very active in both Rome and Venice despite battling a deadly illness. He passed away in July of 2010.

The case of Giorgio Grassi is also quite interesting because he has continued working showing a coherent methodology, both formal and analytical. Grassi has always been a non-conformist and a critic of conventional mainstream architecture; his other writings and essays collected in *L'Architettura come Mestiere ed Altri Scritti* in 1979, *Architettura Lingua Morta* in 1988, *Progetti per la città antica* in 1995, and *Scritti Scelti*

⁴⁵⁶ See Carlo Aymonino, *La Città di Padova: Saggio di analisi urbana*, (Roma: Officina, 1970), and Carlo Aymonino, Gianugo Polesello, Gianni Fabbri, Raffaele Panella, Guido Canella, Costantino Dardi, and Luciano Semerani, *Per un Idea di Città: La Ricerca del Gruppo Architettura a Venezia (1968-1974)*, (Venezia: CLUVA, 1984).

in 2000 have become very relevant because they have outlined an indivisible logic within a strictly personal architectural method. Theory and practice correspond to the same line of thought. Grassi's architecture still focuses on the ordinary; his buildings are generated by a vocabulary of severe forms and signs without any reference to rhetorical formal explorations.

The students housing complex in Chieti (Figure 41), the redesign of the historical center of Teora in Italy, completely destroyed by an earthquake, the restoration and rehabilitation of the Sagunto Roman Theater in Valencia, and the Potsdamer Platz complex in Berlin, all show a clear characterization of architecture treated as a primordial ruin, leaving its elemental volumetric elements such as columns and walls pure and exposed. Unity is very important within the work of Giorgio Grassi. His isolationistic definition of architecture has always been coherent and silent through the years, where architecture has always remained the sum of all architectures, and the inevitable accumulation of forms, solutions, and building types.⁴⁵⁷ Grassi's methodology and research of autonomy has remained very pragmatic as well. He has been constantly interested in setting up a architecture's rules and norms; this necessity was expressed in his book *La Costruzione Logica dell'Architettura*, which was recently reprinted and republished along with two new books: one on Leon Battista Alberti and the importance

⁴⁵⁷ Giorgio Grassi, *Architettura, Lingua Morta: Architecture, Dead Language*, (Milano: Quaderni di Lotus 9, 1988), 10.

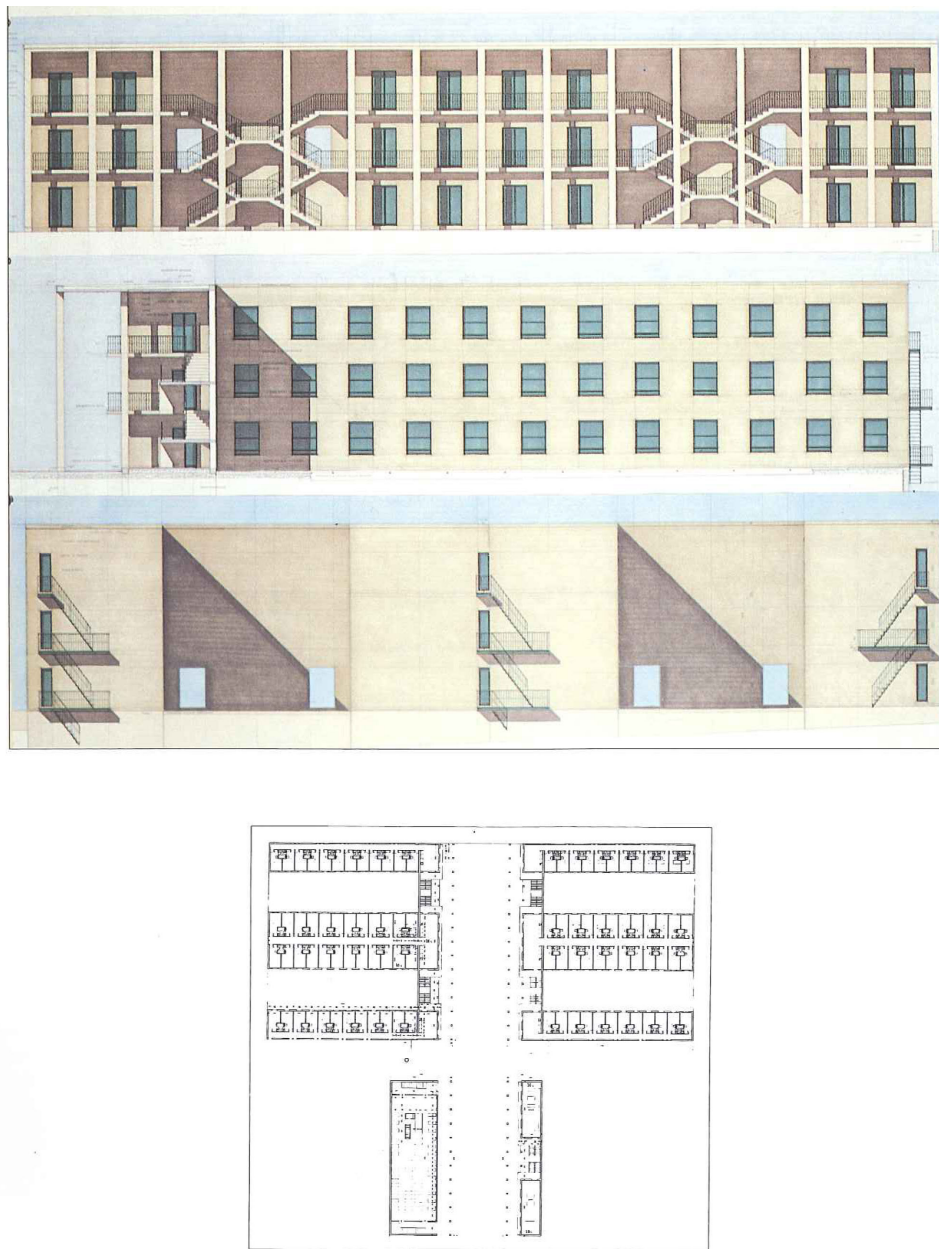


Figure 41. Casa dello Studente, Chieti, by Giorgio Grassi, 1976. From Panos Koulermos, *20th Century European Rationalism*, (London: Academy Editions, 1995), 148.

of Roman architecture and the other, more autobiographical, on his life as a practicing architect in search for a methodology.⁴⁵⁸ Both books remind us of the necessity to find ideological masters and appropriate methodological positions when everything unfolds in a sort of eclectic formalization. Grassi, who is currently teaching at the Politecnico, still proposes an architecture generated by a rational process and the simplification of form; he does so because he feels uncomfortable with the contemporary trends that propose a complete break away from the past.⁴⁵⁹ For Grassi, once again, architecture has remained a process of accumulation that does not discard any information acquired during its historical articulation; the profession is still in search of rules and norms, and Grassi, 38 years after the XV Triennale, is still offering an architectural production based on the stability of a theoretical nucleus that did not deviate from the rationality expressed in his early work.

Antonio Monestiroli, another one of the Milanese youngsters, graduated under Franco Albini in 1965, and worked as Rossi's assistant and personal collaborator from 1968 till 1972. As a faculty member at the Politecnico, Monestiroli had supervised some of the design work showcased at the XV Triennale. His production includes collaboration with Giorgio Grassi in the students housing complex in Chieti in 1976, the design competition for the Piazza in Ancona in 1978, a housing complex for the elderly in Galliate, Novara in 1989, and the expansion of the Voghera cemetery in 1995. Yet, Monestiroli's best contribution has to be found in his theoretical work that was

⁴⁵⁸ See Giorgio Grassi, *Leon Battista Alberti e L'Architettura Romana*, (Milano: Franco Angeli, 2007), and Giorgio Grassi, *Una Vita da Architetto*, (Milano: Franco Angeli, 2008).

⁴⁵⁹ Giorgio Grassi, *Una Vita da Architetto*, (Milano: Franco Angeli, 2008), 64.

summarized in his famous collection of essays *L'Architettura della Realtà* published in 1979 by CLUP. Because of the actual relevance of Monestiroli, who is currently teaching at the Politecnico, also serving as the architecture department head from 2000 to 2008, I believe that it is opportune to address some of his major methodological and theoretical propositions that he has constantly implemented in his pedagogy and practice. Antonio Monestiroli claims that basic building forms expressed by certain typological formations are deeply rooted in centuries-old traditions that may provide opportunities for future propositions.⁴⁶⁰

Particularly, Antonio Monestiroli argues that architectural language and its definition of simple architectural elements can be used and can be described as formal system, which accounts for the sense of the building. This language includes technical laws of construction, natural and historical form, and urban identity. Thus, a coherent process should not be presented by mimicking its formal connotations, but it should be generated by a detailed understanding of its typological structure, and compositional logic.⁴⁶¹ The work of Monestiroli has often linked architecture to language; by doing so, he has been able to identify an autonomous project based on the repetition or regeneration of particular dominant archetypes. In a way, this language and collection of archetypes defines the internal identity of architecture and its system of representation, which is ideally based on the idea of classification, by via of typological expression. The question of language will also bring up issues of analogy, which, when utilized as a procedural apparatus, will avoid the necessity to mimesis styles. Antonio Monestiroli

⁴⁶⁰ Antonio Monestiroli, *Architettura della Realtà*, (Torino: Allemandi, 1999). 11

⁴⁶¹ Ibid., 162

worked with Aldo Rossi and Giorgio Grassi; I believe that his theoretical approach to architecture not only completes the previous two architects' methodology, but it also introduces new analytic practices that enrich the concept of autonomy and rationality of method.⁴⁶² Monestiroli brings up the question of forms of analogy in architecture that are identified by the isolation of single elements and by understanding of their role within the final architectural product. We should be able to rationalize norms and principles of architectural composition, so that every building part can be designed and framed by a logic assembling. *L'Architettura Della Realtà* is fundamental in understanding Monestiroli's methodology. The book, which has been reprinted twice since its original publication in 1979, is a collection of four important topics and writings that were produced during the late 70s. Monestiroli's objective is very clear: he is trying to identify main conceptual and methodological categories that can be applied to architecture in general.⁴⁶³

It is interesting to note that this procedural attitude becomes quite fascinating, as it has challenged our contemporary view of architecture, continuously saturated with extreme experimentations. Monestiroli, like Rossi and Grassi, is more interested in recognizing themes of significant permanence, or things that keep reappearing in our life. Architecture is once again a cognitive activity that operates under a dualistic territory: social realities, and the history of architecture as a disciplinary background.⁴⁶⁴ This definition was somehow influenced by the Frankfurt School of Critical Theory and

⁴⁶² Ibid., 12.

⁴⁶³ Ibid., 95.

⁴⁶⁴ Ibid., 103.

the work of Lukacs and Adorno. Monestiroli, like all the designers associate to *Tendenza*, is well aware of this philosophical standpoint, so he believes that the sense and meaning of architecture has to be found within its social dimension.⁴⁶⁵ Monestiroli is also interested in how the city forms itself through the configuration of residential housing units, which reflect the typological and morphological aspects of the existing urban fabric. This concept was also analyzed by Rossi, Aymonino, and Grassi, and it is not surprising to find the same cultural references in Monestiroli's work. In fact, Monestiroli is particularly aware of the work of Ledoux, Schinkel, and Loos and the importance of the Enlightenment and early Rationalism, and he is also sensitive to issues of continuity through analogy. However, and unlike Rossi's, Monestiroli's idea of analogy is based on a double association: the analogy with history, which supplies the tectonics and materiality of the project, and the analogy with nature that allows us to sway away from conventionalism and arbitrariness of form.⁴⁶⁶ Even nowadays, Monestiroli's work has become a great reference and starting point for those looking for a design methodology based on the conceptualization of specific categories in architecture through rationalization.

Considering the current production of Italian design, which had gradually deteriorated into an architecture that has been awkwardly imitating the promotional marketing of other countries, while relaying too much on building technology, and programmatic and political demands of the time,⁴⁶⁷ the work of Monestiroli becomes a

⁴⁶⁵ Ibid., 63

⁴⁶⁶ Ibid., 13.

⁴⁶⁷ Alberto Alessi, *Italy Now?*, (Ithaca: Cornell AAP Publications, 2007), 27.

refreshing and perhaps nostalgic way to generate a method based on the premises set by the tendency of the 60s and 70s. Monestiroli identified himself with J.J.P. Oud, Le Corbusier, Mies, and Loos; by doing so, he believed that architecture could be once again understood as an autonomous form of knowledge that produces its own language and form.⁴⁶⁸ The ideological disjunction existing between theory and the project, as a manifestation of it is absent; this might be the most important feature of Monestiroli's work, which happened to flourish after the events of 1973.

Interestingly enough, Grassi and Monestiroli's methodological influence has been quite ineffective and isolated in Italy, probably because of their rigorous and analytical approach to design and their consequent isolationistic definition of architecture based on simplicity and anonymity of form; yet, they have been able to present and show their work and ideas with some positive recognition in the Nederland, most notably at the Berlage Institute and the TU in Delft, in Germany, and in Spain, countries that have been producing an interesting variety of promising young architects and consequently interesting methodological propositions.⁴⁶⁹

Like mentioned before, the other collaborators and participants of the so-called *Tendenza* have maintained a low professional profile, retreating to academia and

⁴⁶⁸ Antonio Monestiroli, *La Metopa e il Triglifio: Nove lezioni di architettura*, (Roma; Laterza, 2001), 29.

⁴⁶⁹ Grassi has been often invited in Spain and Germany to lecture about his recent interventions in Berlin and Valencia; Monestiroli has been a frequent guest lecturer in Delft at the Technical University, which, along with the Berlage Institute, has dedicated a series of introspections on the *Tendenza*, the last of which were held in May and October of 2010 and were organized respectively by Umberto Barbieri and Henk Engel.

teaching. Daniele Vitale, Rosaldo Bonicalzi, Gianni Braghieri, and Massimo Scolari⁴⁷⁰ have all developed a strong didactic and research pedagogy that they have implemented though the years at the Politecnico in Milan, and that has been at the basis of design composition and foundations.⁴⁷¹ I believe that this distinctive and pedagogical quality is indeed the most critical connotation of the intellectual project of *Tendenza*, which essentially produced a method and a processual didactic that can construct heterogeneity from a rational intellectual discourse.

When we consider the international legacy of the XV Triennale and those architects invited by Rossi, I believe that is also interesting to look into the methodological evolution of Peter Eisenman, Michael Graves, John Hejduk, Richard Meier, and Charles Gwathmey, a group of American architects also known as the Five Architects or the New York Five. Eisenman's interest in Italian Rationalism has always been very strong, and it had started around 1963 when Eisenman, a doctoral student at the Trinity College of the University of Cambridge, initiated a formal analysis of the work of Giuseppe Terragni under the academic guidance of Colin Rowe. His dissertation *The Formal Basis of Modern Architecture*, submitted for the degree of Doctor of Philosophy, was originally conceived as a critical response to Christopher Alexander's dissertation that was published as *Notes on the Synthesis of Form*. Eisenman's argument

⁴⁷⁰ Daniele Vitale and Rosaldo Bonicalzi are still active within the Politecnico in Milan. Massimo Scolari has been academically involved at UCLA and Yale as a Davenport Visiting Professor.

⁴⁷¹ Rosaldo Bonicalzi coordinates a research project of the Ministry of University for Scientific and Technological Research (M.U.R.S.T.) on architectonic characters for farmhouse settlements along the Brescian and Cremonese banks of the Oglio River, while Daniele Vitale in the coordinator of the Doctoral program in architecture.

was that logical and objective considerations could provide a conceptual basis or relationship for any form of architecture. Eisenman does not make a distinction nor isolates modern form from historical form; instead, he develops his own dialectic based on the idea that architecture is a formal language with a grammar that should support the study of forms and constructions. He achieved this process by creating geometrical relationships between building parts, formal syntax, in order to clarify and validate the relationship between form and any architecture. For Eisenman, form becomes an autonomous component as it evolves and regenerates itself endlessly without any external contamination. Essentially, he develops his own architectural language that is mainly based on this idea that architecture is a formal endeavor that embodies a shape grammar that also supports the study of forms and constructions⁴⁷²

Accordingly, formal considerations are essential to all architectures regardless of style or context. Eisenman, indeed, developed a highly charged formalistic syntax, which tried to communicate the true essence of architecture. Eisenman explained historical and modern buildings by imposing geometrical patterns generated from an analysis of the work of architects such as Terragni, Le Corbusier, and Alvar Alto.⁴⁷³ This system of investigation was tested and further developed in order to create a definitive geometrical model, which once again linked form to architecture. In his conclusive chapter, Eisenman explained that theory should abandon its historical tradition while it should establish a system of formal priorities that should allow us to read architecture as an open-ended system of volumes and forms. In conclusion, his dissertation was meant

⁴⁷² Peter Eisenman, *The Formal Basis of Modern Architecture*, (Lars Muller, 2006).

⁴⁷³ Ibid.

to emphasize the importance and justification of formal investigations in architecture as a mean of generative processes. Although Eisenman's method could be deemed essentially subjective because it showed a strong personal interpretation and reading of certain buildings, his research work, in the end, became an essential document for a comprehensive understanding of his architectural and theoretical practice, and his positioning among the International section curated by Rossi in 1973. In fact, if we look at the work presented for the Triennale by Eisenman, Meier, Gwathmey, Graves, and Hejduk, we can certainly recognize an extremely formalist attention and a processual precision based on a logical manipulation of volumetric and geometric components.

Yet, their work was also characterized by a dichotomy between the signifier and signified, where the signified, the architectural function, remained constant, while the signifier, form, changed according to a precise and rigorous process of manipulation.⁴⁷⁴ Consequently, the Five's methodological approach was particularly characterized by formal investigations of pure volumetric elements, which, in some instances, were layered, overlapped, and deformed to ensure a sense of formal and architectural complexity. Furthermore, they never showed any interests in typological studies and other element of urban science, which was at the basis of the work of *Tendenza*, while they kept exploring the multiple manipulations and visual treatment of volumes and surfaces rather than analyzing the relevance of dominant types and their architectural and urban connotations. Interestingly enough, Eisenman will continue his formal

⁴⁷⁴ See Charles Jencks and George Baird, *Meaning in Architecture*, (New York: Barrie & Jenkins, 1970) and Geoffrey Broadbent and Charles Jencks, *Signs and Symbols in Architecture*, (New York: John Wiley, 1980).

research exploring the appropriateness and processual relevance of the concepts of autonomy and then of deconstruction, collaborating first with Noam Chomsky, an American linguist, and then with Jaques Derrida, a French philosopher, while Michael Graves will turn its methodological attention to the eclectic explorations of Post-Modernist architectural language; Meier and Gwathmey will instead remain loyal to the guidelines and canons of early modernism, producing an architecture stylistically clean and methodologically closer to the work of Le Corbusier, and Mies van der Rohe.⁴⁷⁵ The same methodological outcomes are noticeable in the work of O.M. Ungers and Leon Krier; however, while Ungers remained attracted to the sense of monumentality, volumetric purity and reductionism of modernism, Krier directed his interest toward a more neo-traditional approach based on the recollection of types, yet more attentive to a formal historicist language a bit too conservative and antithetical to the original ideas of *Tendenza*. Krier's methodological revivalism was clearly unfolded in the book *Rational Architecture Rationnelle, 1978*, a catalog based on an exhibition organized by the Architectural Association in London and Art Net, and directed by the same Leon Krier that eventually offered a rather conservative version of rationality which will eventually escalate in the aesthetical pastiche of Post-Modernism.⁴⁷⁶

⁴⁷⁵ Kenneth Frampton, *Modern Architecture: A Critical History*, (London: Thames & Hudson, 2007).

⁴⁷⁶ See AA.VV., *Rational Architecture: The reconstruction of the European city*, (Brussels: Archives d'architecture Moderne, 1978), and Ross King, *Emancipating Space: Geography, Architecture, and Urban Design*, (New York: Guilford Press, 1996), 152. Additionally see Charles Jencks, *The Language of Post-Modernism*, (New York: Rizzoli, 1977)

The Rational Idea: Conclusions

Considering the original premises of my doctoral work, my dissertation was supposed to attempt to construct a matrix of historical and methodological associations and demonstrations that validated and legitimized that rational methodology through a close examination of the work and key concepts of *La Tendenza*, a group of architects in the Italy of the 1960s, pointing out their importance in preparing the ground for the International section of the XV Triennale Exhibition of 1973, which ideologically represented a major point of arrival and also a major point of departure for architecture culture in Italy and worldwide.

Just to summarize the premises of my doctoral research, Chapter I outlined the thematics addressed in my dissertation, unfolding my research question, the methods used, the relevance and significance of my work to the contemporary architectural debate, and its internal disciplinary structure. As in most doctoral works, my introduction also proposed an explanation of my individual philosophical framework, a step necessary to clarify the narrative style adopted as well as the sequencing of those events analyzed. Chapter II briefly introduced the reader to the International section of XV Triennale by underlying its two major ideological components: that of Rationalism and Autonomy. Thus, the rest of the chapter offered a chronological and explanatory account of rationalistic and autonomous developments within the field of architecture and structural linguistics by analyzing the importance and ideological continuity of the theoretical work of Vitruvius, Leon Battista Alberti, Abbè Laugier, Boullée, Ledoux, Jean Nicolas Durand, and the so called Proto-Rationalists, in order to establish a

methodological stability with the discourse of *Tendenza*. Chapter III outlined the premises and origins of *Tendenza* intended as a heterogeneous movement by looking at the most important schools of Milan, Venice, and Rome and the respective methodological and analytical work of Ernesto Nathan Rogers, Giuseppe Samoná, and Ludovico Quaroni. Chapter IV analyzed the importance of the city as background of a new methodology. Particular consideration was given to the didactic of the course *Caratteri Distributivi degli Edifici*, the contribution of Saverio Muratori and Gianfranco Caniggia to the discipline, and the significant production of specific academic readers, the CLUVA and CLUP collection, that introduced the importance of urban approaches based on the dichotomy and relationship between design and analysis, residential typology and urban morphology. While Chapter V focused on the theoretical production of this particular rational tendency expressed in the writings of architects such as Aldo Rossi, Giorgio Grassi, Carlo Aymonino, Vittorio Gregotti, Ezio Bonfanti, and Nino Dardi, and the establishment of a particularly homogeneous cultural discourse, Chapter VI presented a clear break down of the International section of the XV Triennale Exhibition of 1973 by offering a comprehensive analysis of the work exhibited and by also investigating the nature of its ideological framework in order to evaluate the rules for a coherent and rational design practice.

In the end, I firmly believe that main hypothesis of my research, that of a return to a rational methodology characterized by a deep understanding of architecture's internal building logic, which was identifiable in the work and ideas expressed at the XV Triennale Exhibition of 1973, had indeed a significant and lasting impact on the thinking

and formation of architecture culture in Italy and worldwide. Although and after the Triennale of 1973 several publications have addressed the importance of a Rationalist practice, their content has been very limited to a formalistic and sometime conservative production, quite superficial and generic for content. In fact, if we look at the book *Rational Architecture Rationnelle, 1978*, which was supposed to prolong the legacy of Rossi's International section at the XV Triennale of Milan, we can recognize a certain insistence in stylistic issues, which were not part of the analytical studies proposed by the Italians. In fact, the work by Rob and Leon Krier, Bernard Huet, and Fernando Montes appears to be more interested in expressing the formalization of history through stylistic and aesthetical elements than focusing on the significance of typological studies as an analytical design method; interestingly enough, the book examined the Roosevelt Island competition entry and the East River housing project by Rem Koolhaas and Elia Zanghelis which was placed after Fernando Montes' conservative entry for a section of de La Villette district in Paris, showing an ambiguous association of design methodologies that are not truly conducive to the idea of rational urban analysis. In fact, while Koolhaas and Zanghelis look at the evolution of the city and the consequent presence of dynamic types, clearly elucidated in Koolhaas' retroactive manifesto *Delirious New York*, Montes remains anchored to a static and frozen neoclassical melancholy that is explicitly expressed on his buildings' façade by an extensive use of revivalist columns and arches, proposing a confusing way to link new architecture and history.⁴⁷⁷ Interestingly enough, this conservative impulse will continue, expressing

⁴⁷⁷ See AA.VV., *Rational Architecture: The reconstruction of the European city*, (Brussels:

itself in the 1980 International architecture exhibition of the Venice Biennale titled the *Presence of the Past*, organized by Paolo Portoghesi, and articulated around conservative and post-modernist themes.⁴⁷⁸

The AD issues on *Building and Rational Architecture*, edited by Demetri Porphyrrios in 1984, presents the same problem; in fact while the work and writings of Giorgio Grassi set up the premises for a methodological architectural practice that does not expose a precise formal and stylistic attitude, Alan Colquhoun's essay on Vernacular Classicism, the work in Caserta by Leon Krier, Demetri Porphyrrios' pavilions at Highgate (Figure 42), and Duany & Plater-Zyberk's Vilanova House in Florida (Figure 43) are too explicitly looking for conservative formal and stylistic guidelines that are expressed in the copy and paste use of classical elements.⁴⁷⁹

However, Panos Koulermos' *20th Century European Rationalism* finally returns to the roots of early Rationalism by proposing a monographic collection of architectural works that addressed issues of autonomy, historical continuity, and methodological coherence, where typological analysis, formal reduction, metaphysical dimension, and mnemonic associations, are all taken into account as possible architectural expressions.⁴⁸⁰ Thus, the work of Le Corbusier, Libera, Asplund, Terragni, and Lingeri is linked to the experiences of Rossi, Grassi, Aymonino, Polesello, Ungers, and Campo

Archives d'architecture Moderne, 1978), and Ross King, *Emancipating Space: Geography, Architecture, and Urban Design*, (New York: Guilford Press, 1996), 100-160.

⁴⁷⁸ See Paolo Portoghesi, *The Presence of the Past: Venice Biennale*, (New York: Rizzoli, 1980).

⁴⁷⁹ See, AD Profile 53: *Building & Rational Architecture*, vol. 54, Guest Ed. Demetri Porphyrrios, (London: Academy Editions, 1984).

⁴⁸⁰ Panos Koulermos, *20th Century European Rationalism*, (London: Academy Editions, 1995), 7.



Figure 42. Highgate Pavilions, by Demetri Porphyrios. 1981; from AD Profile 53: *Building & Rational Architecture*, vol. 54, Guest Ed. Demetri Porphyrios, (London: Academy Editions, 1984), 49.



Figure 43. Villanova House, Duany & Plater-Zyberk, 1984. From AD Profile 53: *Building & Rational Architecture*, vol. 54, Guest Ed. Demetri Porphyrrios, (London: Academy Editions, 1984), 66.

Baeza reinforcing this idea of a coherent rational methodology capable of producing architectural heterogeneity.

In 2007, *Architectural Design* comes out with an issue titled *Rationalist Traces* and guest edited by Andrew Peckman, Charles Rattray and Torsten Schmiedeknecht, which proposes an overview on Rationalism based on its epistemological understanding, less formal and more methodologically interested in an analytical sensibility that finds different formal expression more responsive to urban contexts. Yet, in her opening editorial, Helen Castle, the chief editor, does not see any ideological or methodological implication in the term rationalism, but she only recognizes a generic pragmatic expression that generates formal elegance within a given context.⁴⁸¹

Again, I believe that there is an unmistakable and fundamental misinterpretation of the rationalist implications, which were never aimed to the achievement of a formal elegance or production, but instead, they advocated the possibility for a design methodology that would address questions of method and didactic. Looking back at some of the major concepts that emerged from my research, I believe that it is important to underline the relevance of architecture's rational domain in which every method can be traced back to a particular theoretical discourse. Particularly, this was not based on a sort of stylistic pragmatism, but it was underlined by an understanding of architecture as a strictly material practice dictated by an unmistakable building logic. Even throughout the work of Rossi, there is never a formal or stylistic overriding factor that overtake this search for rationality; instead, Rossi believes that the formation of a general theory of

⁴⁸¹ Helen Castel, "Editorial," in *AD Profile 189: Rationalist Traces*, vol. 77, n.5, (London: John Wiley & son, 2007), 5.

architectural design, one which can also produce multiple resultants, has to be the very first objective of a methodological school.⁴⁸² Rossi knows that there is indeed a close association between theory and practice, between ideas and buildings, so he advocates the necessity for a theory as a fundamental component of rational tendency. Thus, the first principle for a theory of design is embodied into the search for a thematic procedure within the field of architecture, which considers the city and its inner urban structure as a point of departure.

While Rogers, Quaroni and Samona have showed us the bases of such a tendency by underlining issues of historicism and urban analysis, the didactic of *Caratteri Distributivi degli Edifici* unfolded a new understanding of typological thinking based on functional distribution. This approach facilitated the recognition of formal qualities that would diagrammatically explain the emergence of a particular urban morphology. But most importantly, the didactic implications of this course have underlined the presence of this rational system that proposes an analytical investigation of functional distribution and its effects on urban form. It is important to remember that the principles originating from *Caratteri Distributivi degli Edifici* are still an integrant part of the architectural pedagogical curriculum in Italy and could be very well applied to urban studies of American cities in order to understand the recurrence of particular types as well as the necessity for better urban plans.⁴⁸³ It is also important to note that most of *Tendenza's*

⁴⁸² Ibid, 123. Also see Aldo Rossi, *Selected Writings and Projects*, (London: Gandon Editions, 1983), 15.

⁴⁸³ The course *Caratteri Distributivi degli Edifici* is still taught in various schools of architecture in Italy, and it has included other particular subjects such as typology and morphology. The course is also often integrated with the didactic of design studio. For a better understanding of its

work found expression in the design of residential housing complexes. This was also dictated by the understanding that residential housing accounts for a good part of the city's structure. Therefore, the design of a particular residential type involves a clear and comprehensive understanding of the city through its collection of emergent architectures that should help the recognition of those generative rules capable of providing continuity in the inner urban fabric. Clearly, the work of Saverio Muratori represented a milestone in the development of a research-based tendency that was assimilated and digested by Rossi, Aymonino, and Grassi, and that was also strongly expressed in the work exhibited at the XV Triennale.

It is also important to state that this doctoral work was not conceived as a melancholic proposition of some historical tendency, but it was envisioned and articulated as a way to propose an analysis of an architectural discourse that looked for disciplinary norms based on order, clarity and rationality. While contemporary architecture is turning more and more toward the explosion of form and the obsessive search for originality, which has lead us to a new sort of avant-gardism⁴⁸⁴ that has produced theoretical propositions not applicable to the contextual conditions typical of the Italian landscape, the work exposed in this dissertation has instead showed that a return to a rational tendency could lead to more appropriate and realistic methodological results; yet, this tendency should not be addressed by nostalgic revivals, but it needs to

academic implementation, see samples of the syllabi for *Caratteri Distributivi degli Edifici* and *Caratteri Tipologici e Morfologici dell'Architettura* as taught at the IUAV, the Politecnico in Milan, the University of Naples: Federico II, the University of Cagliari in Sardinia, the University of Florence, and the University of Ferrara in Appendix B.

⁴⁸⁴ See Luigi Prestinenza Puglisi, *New Directions in Contemporary Architecture: Evolutions and Revolutions in Building Design since 1988*, (London: John Wiley & Son, 2008), 181-224.

go back to those analytical proponents identifiable in the tradition of historical research, and the architecture of the city that legitimized the rational methodology of *Tendenza*. Although the premises of Rationalism have been often linked to a stylistic idea, its didactic connotations were never aimed toward the identification of formal proponents. Rationality, as understood by *Tendenza*, was an idealization of a process based on the perception that architecture should be produced by a methodology that addresses tangible components. In fact, the Rationalism of Rossi, Grassi, and Aymonino was the tangible response to the Post-war Italian landscape, which needed new alternatives more contextual and less rhetorical-technocratic. Comparably, the same conditions exist nowadays; in fact, considering the drastic changes and limits mandated by the current financial crisis, architects have to be looking at the methodological framework produced by the Italian *Tendenza* in order to understand those practical premises that produced a discourse more consistent to real and concrete problems.

Even in the United States, the methodological practice of *Tendenza* has been object of studies by several historians and theorists such as Stanford Anderson, Diane Ghirardo, Anthony Vidler, and Michael Hays.⁴⁸⁵ Particularly, they have recognized this opinion that the advanced architecture of the 1970s has left a legacy of experimentations and theoretical speculations that have not been matched by any of the late avant-gardes.⁴⁸⁶ Most of those studies are based on the interpretation of the writings of Aldo Rossi, Giorgio Grassi, and Manfredo Tafuri, but again, while they have emphasized the

⁴⁸⁵ See K. Michael Hays, *Opposition Reader: Selected Essays 1973-1984* (Princeton: Princeton Press, 1997).

⁴⁸⁶ K. Michael Hays, *Architecture's Desire: Reading the Late Avant-Garde*, (Cambridge, MA: The MIT Press, 2009), 2.

necessity for a general theory mostly autonomous,⁴⁸⁷ they also underestimated the major ideological premises of *Tendenza*, which proposed a return to rationality and a clear building logic as the ultimate response to real problems.

Again, the XV Triennale was ideologically defined by a fragmentary conceptual organization; in fact, Rossi's section *Architettura-Città* appeared to a lot more coherent showing an understanding of a specific tendency that had been developing mostly in the schools of Milan, Rome, and Venice.⁴⁸⁸ It is particularly this analytical process that confirms *Tendenza's* inevitability to rely upon a theoretical framework that could be tested by researching specific precedents. The same research should be described by a rigorous system of urban propositions that are rationally stitched to produce a building empirically verifiable. Within this rational framework, the architect is the one responsible for any unequivocal definition of those primary elements of study; as part of this process, those elements, such as building types, can be reduced to an overgeneralization of the design process based on generic solutions not always related to the specificity of the context.⁴⁸⁹ It is vital to understand that the study of the city and its parts was clearly and unmistakably fundamental to the creation of a method, a tendency that proposed the establishment of a rational theory of architecture based on the relationship between analysis, or research, and the design of architectural artifacts.

⁴⁸⁷ Ibid., 4.

⁴⁸⁸ The work of Peter Eisenman, Michael Graves, Charles Gwathmey, John Hejduk, Richard Meier, Oswald Mathias Ungers, Carlos Marti, Robert Venturi, Denise Scott Brown, and James Stirling was exposed in the International section curated by Rossi. The work was not necessarily associated with the Italian tendency, but in some cases it was symptomatic of a common formal and analytical approach to architecture's current problems.

⁴⁸⁹ Ibid., 34.

In the end, it all goes back to the premises of rational epistemology and the ultimate search for knowledge. In fact, the general proposition in which “I think therefore I am” proposes a newfound interest in everything that can be logically rationalized.⁴⁹⁰ Thus, rationalist premises address cognitive issues related to the historical zeitgeist of architecture that privilege reason above experience, logic above instinct, and idea above form. Eventually, architecture should not be understood aesthetically or morally, but it should be conceived as the only comprehensive answer to real problems.⁴⁹¹ When the overly rhetorical production of the so-called avant-gardes has extinguished once again, we will have to address new questions of architectural method. Thus, my dissertation has proposed the study and analysis of a specific methodological framework in order to underline those relevant ideological and processual characteristics typical of a rational discourse that avoids contamination with formalistic or stylistic issues. Eventually, this desire to establish a theory of design based on the triumph of the idea over the image should determine the future methodological modes of architectural production, lucidly articulated and rationally exposed, but also capable of producing multiple formal expressions. Architecturally speaking, it is always a question of method.

⁴⁹⁰ Panos Koulermos, *20th Century European Rationalism*, (London: Academy Editions, 1995), 7.

⁴⁹¹ See Aldo Rossi, Ezio Bonfanti, *Architettura Razionale* (Milano: Franco Angeli, 1973), 13; also cited in Federica Visconti, Renato Capozzi, *Architettura Razionale*, (Napoli: CLEAN, 2008), 1.

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APPENDIX A

Extract from Carlo Aymonino, Gianugo Polesello, Gianni Fabbri, Raffaele Panella, Guido Canella, Costantino "Nino" Dardi, and Luciano Semerani, *Per un Idea di Città*, (Venezia CLUVA, 1984).

Carlo Aymonino

251

Note sul programma di ricerca

Il campo di indagine è volutamente limitato al settore dell'abitazione, presupponendo che tale settore abbia svolto un ruolo determinante nella formazione e nello sviluppo della città moderna (XIX secolo) e contemporanea (XX secolo); ruolo che caratterizza ancora oggi, al di là delle diversità specifiche riscontrabili nei singoli paesi capitalistici, le trasformazioni in corso nelle città europee.

L'analisi del ruolo dell'abitazione è quindi limitata a sua volta a quelle proposte e a quelle realtà che hanno inteso modificare o hanno mutato radicalmente la forma delle strutture urbane contemporanee: essa è pertanto finalizzata a intenti operativi, di progettazione architettonica. Gli intenti progettuali a loro volta, per divenire progetti, presuppongono la conoscenza di determinati strumenti specifici (tecnici) e una collocazione logico-storica (politica) dell'uso di tali strumenti. Il ruolo dell'abitazione può essere precisato allora sia nei suoi riferimenti politici che nei suoi riferimenti tecnici quando venga esaminato all'interno del rapporto fra la morfologia urbana e la tipologia edilizia. Tentiamo di precisare i due termini di questo rapporto.

Per morfologia urbana deve intendersi lo studio (la descrizione e la classificazione) delle cause che concorrono al costituirsi e al modificarsi della struttura fisica delle città. La morfologia urbana è di carattere astratto-concreto: essa acquista la validità di strumento conoscitivo, diviene cioè "necessaria" per modificare il reale, quando le trasformazioni delle città non avvengono più "dal vero" (per sostituzioni parziali, di luogo in luogo, isolate nei loro rapporti temporali e spaziali), ma per quantità precostituite secondo un piano o un programma di sfruttamento del suolo, con dimensioni fisiche non più controllabili empiricamente nel loro insieme (come invece poteva essere controllata la percezione visiva delle "dimensioni" della città murata o la collocazione del singolo monumento collettivo, ecc.). La morfologia urbana non si esercita quindi sul "dato reale", ma su elementi artificiali già ridotti a modi di rappresentazione convenzionata

della realtà – quali i rilievi topografici, quelli catastali, i piani di ampliamento, quelli regolatori ecc. – che soli permettono di cogliere nel suo insieme il variare delle soluzioni parziali e di ricostruire in astratto una immagine unitaria della città per registrarne i mutamenti della forma.

Per tipologia edilizia deve intendersi lo studio (la descrizione e la classificazione) dei manufatti edilizi che concorrono a determinare fisicamente i bisogni e le necessità di una data società. Anche la tipologia edilizia è di carattere astratto-concreto e diviene uno strumento di conoscenza non solo quando descrive e classifica l'esistente – i rilievi dei palazzi, delle case, dei monumenti ecc. – ma soprattutto quando predispone i riferimenti architettonici rispetto all'insorgere di nuove esigenze, da "prestabilire" nella loro forma fisico-concreta (i tipi edilizi). Dato per esistente il rapporto tra la morfologia urbana e la tipologia edilizia come un rapporto dialettico, è sul variare di questo che si basa l'esistenza delle città nel suo duplice aspetto: come carattere generalizzabile in determinati periodi storici (la città mercantile-borghese, la città industriale, la città speculativa, ecc.) e come carattere individuo di ciascuna città (la differenza tra la Roma tardo-imperiale e la Roma barocca, ad esempio).

Il carattere generale è dato dalla possibilità di rilevare, attraverso l'analisi urbana, la permanenza di un rapporto tra la morfologia urbana e la tipologia edilizia in condizioni geografiche differenti; (ad esempio le relazioni tra le case artigiane, le strade, i monumenti pubblici in Padova, in Berna, in Parigi nell'epoca mercantile). Il carattere individuo è dato dalla possibilità di rilevare, sempre attraverso l'analisi urbana, i mutamenti nel rapporto morfologia-tipologia; (ad esempio le conseguenze che la costruzione del quartiere di Friedrichstadt comportò per la struttura urbana di Berlino rispetto alla precedente forma di città medioevale).

La forma urbana è conseguentemente un processo continuo, almeno là dove si è in presenza di uno sviluppo delle città; se è possibile descriverne e valutarne le caratteristiche in un periodo determinato, non si può ignorare, per afferrarne il senso preciso, né ciò che precedentemente l'ha condizionata e formata, né la tendenza dei processi in corso. Non esiste cioè una forma della città completa e conclusa una volta per tutte, a meno di un arresto totale del suo sviluppo (Pompei). Mentre nel caso dei tipi edilizi è possibile individuarne le caratteristiche di permanenza entro una data continuità storico-sociale e farne una classificazione sistematica.

L'analisi urbana studia quindi le variazioni del rapporto dialettico tra la morfologia urbana e la tipologia edilizia.

Tratto da: *La tipologia edilizia*, in *Per una Ricerca di Progettazione 6*, IUAV, Venezia 1973.

GRUPPO ARCHITETTURA

Per una ricerca di progettazione 1, A.A. 1968/69,
IUAV, Venezia 1969

In questo primo volume vengono messi a punto i lineamenti teorici e la direzione di ricerca sui quali il Gruppo Architettura costruirà la sua esperienza.

La scelta della città come luogo della conoscenza storica e delle comparazioni, come luogo dal quale l'architettura «intende estrarre la propria ispirazione ancor prima di prendere definitivamente corpo in un disegno compiuto o nell'esecuzione» è al centro delle riflessioni di Guido Canella nel saggio *Delimitazione di un'esperienza*. Egli non manca d'altro canto, in *Un ruolo per l'architettura*, di puntualizzare alcune questioni pertinenti proprio allo specifico disciplinare: in un arco storico che va da Vitruvio a Le Corbusier, «intenzionando la storia dell'architettura», Canella cerca di fissare dei punti di riferimento storici, significativi per le tesi (sull'architettura della città) che sostengono la ricerca sua e del Gruppo.

Gianugo Polesello affronta il tema della *Progettazione nella città e della città*, (3 parti), facendo riferimento al rapporto città-edificio e al problema progettuale di scala territoriale nel quale l'insediamento urbano sia riconoscibile come area morfologicamente definita. L'intenzione di collegare la ricerca all'insegnamento di Giuseppe Samonà e al suo discorso sull'"unità architettura-urbanistica" viene chiaramente in luce quando Polesello individua nel *tipo urbanistico* e nel *tipo edilizio* due strumenti di un'unica disciplina, appunto l'architettura. Il primo «definisce fenomeni di ubicazione, stabilisce relazioni tra classi di fenomeni, indica grandezze necessariamente omogenee tra loro», il secondo «è legato allo studio della forma dei corpi fisici, al rapporto metrico-fisico tra essi, alla possibilità di operare classificazioni e stabilire relazioni tra le parti, al sistema di produzione dei corpi stessi, ai ruoli di essi entro un sistema preformato di corpi, etc.». Ecco allora che il rapporto *sito/fabbrica* diventa cruciale: infatti, «se è sufficiente a designare una parte di città o, viceversa, una parte di città caratterizzata da una relazione costante tra sito e fabbrica in ogni parte elementare di essa, dovremmo ammettere di conoscere il valore di quel rapporto, di quelle costanti». L'analisi del Piano per Berlino di Le Corbusier (1961) permette a Polesello la verifica di questo rapporto inteso come strumento di progettazione.

L'eredità degli studi urbani della "Scuola di Venezia" è palesemente presente anche negli scritti di Carlo Aymonino.

In *Architettura come fenomeno urbano*, Aymonino arriva a delineare la sua ipotesi analitico-progettuale della *parte di città formalmente compiuta* proprio attraverso un riesame dei concetti del rapporto monumento/intorno, della città come tutta architettura, della crisi della tipologia, etc. che con Aldo Rossi e altri aveva già formulato nei suoi studi tra il '63 e il '68 sullo sviluppo della città moderna. Inoltre, in *Didattica e Progettazione*, Aymonino non cerca affatto di ridurre tutta la complessità del concetto, ma anzi precisa: «La *parte di città* resta quindi un problema aperto: essa può essere un'unica architettura (ma vanno affrontati in tal caso gli strumenti sostitutivi dei vecchi - pur operanti - regolamenti edilizi), quanto un sistema che imponi la struttura d'insieme, cui aggiungere liberamente le varie parti

(come sostituzione del rapporto strada corridoio-case che vi prospettano), o ancora un settore urbano individuabile e definibile in sé (corrispondente alle "aggiunte" storiche delle città tradizionali). In tutti i casi il carattere necessario perché una parte si costituisca in quanto tale rispetto all'insieme è che essa sia formalmente compiuta, quindi architettonicamente riconoscibile; e tale riconoscibilità è data dal giudizio (analisi + intervento) che si dà sull'insieme».

L'individuazione del rapporto *tipologia edilizia/morfologia urbana* come punto di contatto tra l'analisi e la composizione architettonica costituisce il principale sforzo teorico espresso in *Rapporti urbani e modi d'uso dell'architettura*: «Posso quindi tentare un approccio alla progettazione architettonica e particolarmente ai suoi aspetti compositivi attraverso le analisi sulle strutture urbane (nelle loro trasformazioni profonde e nelle loro conferme), non tanto come conseguenza operativa derivabile dallo studio particolare di un problema - le strade e le piazze, le attrezzature, etc. - quanto come contributo teorico al formarsi dei problemi, evitando la meccanica consequenzialità tra necessità, modi d'uso e architettura».

Momenti sperimentali di analisi urbana sono, infine, i suoi studi sullo sviluppo in età moderna delle città di *Edimburgo* e *Londra*, cui fanno eco quelli di **Gianni Fabbri**, sulle new-towns di Roehampton e sui quartieri di Park Hill e Hyde Park a Sheffield, significative esperienze inglesi degli anni '50 e '60, in *Roehampton, Cumberland, Sheffield*.

Un taglio più propriamente linguistico-compositivo è assunto da **Costantino Dardi** nell'analisi dell'opera di *James Stirling* ed in particolare degli edifici universitari della Facoltà d'Ingegneria a Leicester e della Facoltà di Storia a Cambridge. Caratteristica infatti della ricerca di Dardi è questa maggiore attenzione allo specifico disciplinare (che lo porterà in seguito addirittura a staccarsi dal Gruppo), anche se in questo primo volume gli si deve riconoscere uno sforzo nel senso di rientrare nel quadro dei temi legati alla progettazione nella città esistente, *La Nuova Architettura e la vecchia città*, e al rapporto della Nuova Architettura, come Dardi la definisce, con l'eredità del Movimento Moderno, in *Movimento Moderno e architettura contemporanea*, temi pur sempre centrali agli interessi del Gruppo.

Completano il quadro di questo primo volume, *Architettura e Territorio* di **Raffaele Panella**, *Natura collettiva dell'architettura* di **Gianni Fabbri**, *Centri Storici e architettura moderna* di **Romeo Ballardini**, *Fondamenti macro-urbanistici nelle scelte progettuali* di **Pierluigi Nicolin**.

APPENDIX B

Notes and syllabi from the courses *Caratteri Distributivi degli Edifici*, and *Caratteri Tipologici e Distributivi degli Edifici* from the IUAV, Università degli Studi di Parma, Università di Firenze, Università di Catania, and Università Federico II Napoli.

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Università Iuav di Venezia

FACOLTÀ DI ARCHITETTURA

Corso di laurea in scienze dell'architettura

CARATTERI TIPOLOGICI E DISTRIBUTIVI DEGLI EDIFICI (ICAR 14) anno accademico 2010-2011

titolare: PIERLUIGI GRANDINETTI
collaborazione didattica: MICHELA CAFAZZO

obiettivi

Il Corso assume come tema il progetto di architettura, inteso, prima che nel suo esito, come "percorso", come insieme dinamico, concatenato e finalizzato di operazioni: il percorso logico di ideazione e configurazione della forma architettonica.

Ogni progetto architettonico rivela infatti, in modo più o meno esplicito, una propria intrinseca razionalità, l'esistenza cioè di regole interne connaturate alla sua formazione. Ragionare intorno a ciò significa indagare il carattere analitico e insieme sintetico della composizione architettonica, come disciplina che concorre - per gli aspetti figurativi, formali e funzionali - alla formazione del progetto.

Il Corso si propone di sviluppare una riflessione intorno al processo logico di formazione del progetto, cioè alla specifica razionalità che contraddistingue il procedimento compositivo, nel passaggio dall'ideazione e dall'assunzione dei "materiali" del progetto (il luogo, il tema, la memoria, i riferimenti tipologici, le tecniche, i vincoli, ecc.) via via fino alla loro trasformazione - attraverso l'uso di strumenti e la messa a punto di regole - in "elementi" del comporre, di cui il progetto costituisce l'esito parziale, in quanto esso prefigura l'esito finale, cioè l'opera realizzata.

Attraverso esempi di opere e tipi dell'architettura antica e moderna, il Corso indaga il ruolo degli elementi della composizione nel loro valore di strumenti, la tipologia e la geometria nei molteplici rapporti che esse stabiliscono con la forma architettonica, gli aspetti intuitivi e creativi e i percorsi logici del fare architettura, l'uso degli elementi strutturali, distributivi e linguistici nella costruzione della forma, le sue relazioni con il luogo.

Il Corso vuole infine mostrare le relazioni, all'interno di singole opere di architettura, tra linguaggio e tecniche, tra forme espressive ed esigenze materiali. E a tale scopo utilizza la scala del "particolare architettonico", inteso da una parte come momento di controllo delle scelte progettuali riferite al manufatto nella sua unità architettonica, dall'altra come punto di sintesi tra aspetti della composizione e aspetti della costruzione.

abstract

The theme of the Course is the project of architecture, conceived, before then it's result, as an itinerary, a logical process of configuration of architectural form. This process is considered by the architectural composition, as a matter which defines figurative, formal and functional aspects necessary for elaboration of project.

Using examples of ancient and modern works and types, the lectures intend to develop a research on instruments of composition, on typology and geometry and on their relations with architectural form, on the creative aspects and logical routes of making architecture, on the use of structural, distributive and linguistic elements in the construction of form, on relationship between form and place.

collocazione nel progetto formativo

Il Corso, contemporaneamente allo sviluppo di un'esperienza progettuale, intende fornire agli studenti le conoscenze di base relative agli strumenti della composizione architettonica e agli elementi tipologici necessari alla formazione del progetto di architettura.

contenuti

Rispetto a una concezione dell'architettura come costruzione della forma (costruzione intesa sia in senso logico, in quanto procedimento secondo un ordine, sia in senso fisico, in quanto le forme, i manufatti architettonici sono per loro natura fatti fisici, materiali), la composizione è assunta, nel Corso, come il momento logico del progetto, a partire dal suo significato originario di "combinazione di elementi in un insieme strutturato".

Elementi della composizione sono gli elementi materiali, le forme e le strutture di base (l'elemento come "parte" di un insieme). Ma sono soprattutto le regole, gli strumenti, le procedure del comporre, nell'accezione che al concetto di "elemento" già dava Ernesto N. Rogers: "Il vero elemento è l'elemento

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Università Iuav di Venezia

FACOLTÀ DI ARCHITETTURA

Corso di laurea in scienze dell'architettura

delle operazioni costitutive' così che, se si parla di elementi del fenomeno architettonico, si deve considerare mezzi e norme unitariamente, perché i principi sorgono dall'essenza stessa dei mezzi impiegati e i mezzi vengono scelti come conseguenza inalienabile dei principi, così che le forme non sono autonome e indifferenti, o peggio ancora, 'a priori' al processo costitutivo, ma anche rappresentano il simbolo conclusivo di tutto il processo".

A partire da tale impostazione, il Corso sviluppa una riflessione critica sul ruolo degli elementi della composizione nel loro valore di "strumenti", con riferimento alla tipologia, nei variegati rapporti che essa può stabilire con la forma architettonica, alle categorie e alle regole della geometria in funzione della formazione del progetto, alle procedure compositive e ai percorsi logici del fare architettura in relazione agli aspetti strutturali e funzionali della costruzione della forma. Questa riflessione assume come scale di riferimento l'opera di architettura, il suo contesto, le parti e gli elementi da cui è composta, fino alla scala del particolare architettonico.

Il Corso si articola in lezioni, che riguardano in prima istanza i seguenti argomenti:

- la composizione architettonica e gli elementi del comporre;
- tipi architettonici e regole compositive nell'architettura e nella città antica;
- il tipo architettonico del tempio greco;
- altri tipi architettonici nella Grecia classica ed ellenistica;
- tipi ed elementi compositivi dell'architettura teatrale, antica e moderna;
- trasformazioni del tipo e della tipologia nel passaggio dall'antico al moderno;
- composizione e costruzione della forma: esperienze progettuali nell'architettura moderna.

modalità d'esame

Per sostenere l'esame, sono richiesti lo studio e la conoscenza individuali delle questioni e dei temi analitici affrontati nelle lezioni del Corso, e la capacità, da parte dello studente, di rappresentarli graficamente.

bibliografia essenziale di riferimento

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 Ludovico Quaroni, *Progettare un edificio. Otto lezioni di architettura*, Gangemi, Roma, 1988.
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 Pierluigi Grandinetti, Silvia Mazzetto, *Vesna Skabar*, a cura di, Cavallino-Treporti. Progetti per un'idea di parco, Il Poligrafo, Padova, 2006.
 Paola Gregory, *Teorie di architettura contemporanea. Percorsi del postmodernismo*, Carocci, Roma, 2010.

UNIVERSITÀ DEGLI STUDI DI PARMA - FACOLTÀ DI ARCHITETTURA

LABORATORIO DI PROGETTAZIONE ARCHITETTONICA II-B, prof. Chiara Visentin

**Corso di :
CARATTERI TIPOLOGICI E MORFOLOGICI DELL'ARCHITETTURA**

(Ssd Icar/14, 60 Ore, Annuale, Cfu 4)

★

prof. Monica Bruzzone

L'insegnamento si propone di trasmettere agli studenti quei fondamenti teorici ritenuti strumenti necessari a rapportarsi criticamente con il progetto di architettura nella contemporaneità.

La questione generale del rapporto fra tradizioni tipologiche e caratteri morfologici nella città, viene reinterpretata come incessante ricerca di una identità per l'architettura d'oggi, considerando con particolare attenzione la situazione italiana.

I contenuti del corso, documentati di volta in volta all'interno delle lezioni svolte, sono esaminati avvalendosi dell'autorevolezza di apporti teorici interni al dibattito dell'ultimo trentennio e verificati attraverso esempi di architettura costruita di comprovato valore; si indagano inoltre problematiche più specificamente connesse con il progetto di architettura; vengono istruiti infine quei dispositivi metodologici ritenuti indispensabili per affrontare ogni ricerca con fondato spirito scientifico.

Obiettivo principale del corso è fornire agli studenti una adeguata strumentazione d'analisi e di sintesi per la lettura del progetto d'architettura non solo nella sua dimensione costruttiva, ma anche come requisito intellettuale e poetico, allo scopo di favorire una coscienza critica utile per accostarsi positivamente ad una disciplina complessa ed eterogenea quale la progettazione architettonica.

A partire dal tema generale rivolto a quella realtà identitaria frammentata che definisce la cultura architettonica italiana, il corso si configura strutturato secondo diverse direzioni, occupandosi di volta in volta questioni eminentemente teoriche, progettuali, metodologiche.

CONTENUTI DEL CORSO.

La conoscenza del patrimonio di forme riconosciute e la disposizione logica delle parti che compongono un edificio, la lettura della sua complessità planimetrica e tridimensionale sono ritenuti elementi fondamentali per poter comprendere appieno il progetto di architettura.

Tale rapporto generale tra forme e tipi viene indagato all'interno di una più vasta lettura che introduce la situazione progettuale e teorica italiana nella contemporaneità. Gli esiti eterogenei con cui l'identità dell'architettura italiana del dopoguerra si può cogliere dalle molteplici declinazioni del fare architettura, dal paesaggio fisico così come dall'ambiente costruito e dalla condizione culturale, restituiscono all'Italia l'immagine coerente di un sistema dove influenze diverse hanno saputo comporre una ossatura comune, che trae forza dalla molteplicità delle tradizioni costruttive così come dalla spinta di necessità sociali o dalla verifica di premesse ideali. Anche la lezione internazionale del Movimento Moderno si è rivelata, nel contesto italiano, schermata attraverso stabili filtri culturali che hanno condizionato i risultati progettuali ed affondano le radici nella ritrovata importanza della morfologia urbana come guida per il progetto, ma anche nell'apporto operativo della storia per la nuova architettura. La presentazione di ogni tema verrà accompagnata da una rigorosa scelta di testi. Oltre ad una bibliografia generale di riferimento viene predisposta, per ogni argomento trattato, una breve selezione bibliografica che consente approfondimenti monografici.

ARGOMENTI DA TRATTARE

- **L'approfondimento teorico e un metodo logico di intervento sul reale.**
L'invenzione progettuale come procedimento critico, al contempo analitico e propositivo tra morfologia della città e tipologia degli edifici.
- **Considerazioni sul ruolo dell'architetto.**
Il rapporto tra forma e significato come processo di sintesi di convenzioni culturali .
- **La comprensione della dimensione urbana.**
Il luogo come fenomeno culturale e memoria collettiva nel rapporto tra morfologia urbana e tipologia edilizia.
- **La memoria come materiale del progetto.**
Permanenza della tradizione popolare e necessità della tradizione classica.
- **Il tipo. Principi teorici ed esempi paradigmatici.**
Un efficace strumento ordinatore per il patrimonio di forme riconosciute.
- **Il tipo come prefigurazione di un nuovo assetto formale.**
Dall'ideazione alla forma nel progetto del nuovo.
- **L'espressione dell'identità.**
Dalla frammentazione culturale all'invenzione di una nuova tradizione.
- **L'edificio come composizione di parti.**
Il processo ideativo regola l'organizzazione degli elementi costitutivi dell'architettura.
- **Il ruolo della singola parte in un complesso tridimensionalmente compiuto.**
La sala. Un elemento di unicità nel progetto dell'edificio pubblico.
- **La buona riuscita dei principi dimostrati.**
Rapporti analogici e significati simbolici come strumenti per il progetto contemporaneo.
- **Buona costruzione e piccola dimensione.**
Il significato espressivo del materiale e l'attenzione al dettaglio per un progetto alla scala della città storica.
- **Architettura, parola costruita.**
Quando il controllo della forma diventa consapevole scelta intellettuale.

I RIFERIMENTI BIBLIOGRAFICI ESSENZIALI:

HENRICH TESSENOW, *Hausbau und degleichen*, Berlino, 1916, ed. italiana: H. TESSENOW, *Osservazioni elementari sul costruire*, Milano, Franco Angeli, 1992.

ERNESTO NATHAN ROGERS, *Esperienza dell'architettura*, a cura di Luca Molinari, 2ª edizione Milano, Skira, 1997.

ALDO ROSSI, *L'architettura della città*, Padova, Marsilio, 1966.

CARLOS MARTÍ ARIS, *Le variazioni dell'identità. Il tipo in architettura*, Milano, Clup, 1990.

RAFAEL MONEO, *La solitudine degli edifici e altri scritti. Vol. 1. Questioni intorno all'architettura*, a cura di Andrea Casiraghi e Daniele Vitale, Torino, Allemandi, 1999.

ARTICOLAZIONE DEL CORSO E MODALITÀ DI VERIFICA

Il corso si struttura attraverso un ciclo di lezioni teoriche propedeutiche allo svolgimento di una prova, da intendersi come verifica della frequenza al corso e come accertamento del livello di apprendimento maturato. Si richiede allo studente la capacità di leggere un edificio ritenuto importante per il periodo storico esaminato, avvalendosi degli strumenti critici forniti nelle lezioni. La lettura di una architettura particolarmente significativa, concordata con la docenza, viene verificata secondo tre livelli progressivi: un approccio preliminare all'opera, con disegni a mano libera, prospettive, schizzi e appunti, da svolgersi in loco e con l'ausilio di materiale iconografico pubblicato o fonti inedite; un successivo ridisegno critico dei principali elaborati grafici (piante, prospetti, sezioni in scala 1:200 o 1:100 e almeno una assonometria e uno spaccato assonometrico, oppure una maquette in scala adeguata); una sintesi interpretativa individuale che, partendo dalla elaborazione di una bibliografia accurata dell'opera esaminata (comprensiva di contributi monografici ma anche riferimenti bibliografici estrapolati da riviste, archivi, fonti dirette ed indirette), si concluderà con un breve saggio personale sull'architettura analizzata.

UNIVERSITA' DEGLI STUDI DI FIRENZE > FACOLTA' DI ARCHITETTURA

CORSO DI LAUREA IN SCIENZE DELL'ARCHITETTURA

LABORATORIO DI ARCHITETTURA III-E

PROF. ARCH. EUGENIO MARTERA

MODULO DI CARATTERI DISTRIBUTIVI

ARCH. GIORGIO FURTER

PROGRAMMA ANNO ACCADEMICO 2006/2007

1 - OBIETTIVI DEL CORSO

Il corso si prefigge lo scopo di fornire le conoscenze di base e gli strumenti analitici utili per definire un organismo architettonico.

Si analizzeranno le varie fasi che portano al progetto di architettura andando a mettere in evidenza le diverse tematiche che concorrono alla sua definizione: distribuzione, mixer funzionale, specificità tecnologiche e impiantistiche, problematiche strutturali.

I vari passaggi dimensionali saranno strettamente collegati allo sviluppo del progetto che gli studenti dovranno svolgere nel Laboratorio III.

2 - ARGOMENTI TRATTATI

Saranno affrontate tematiche concernenti lo spazio; partendo dai concetti base, passando per le relazioni uomo-ambiente si arriverà ad illustrare alcune metodologie di dimensionamento spaziale applicato al progetto di architettura.

3 - MODALITÀ DELLA DIDATTICA

Il corso si inserisce nell'ambito del Laboratorio di Architettura III tenuto dal prof. Martera.

Le lezioni teoriche, che si terranno nella giornata di mercoledì, affronteranno i seguenti argomenti:

- Il concetto di spazio e i suoi usi, la territorialità, la distanza.
I modelli culturali e la loro sintesi spaziale nelle tipologie; la connotazione dello spazio architettonico
- La lettura dell'ambiente e l'importanza dei sistemi di comunicazione nella conformazione degli spazi
- L'individuazione degli spazi e dei volumi in base alle esigenze; l'uso dello schema nella traduzione del progetto
- I collegamenti spaziali: la casistica (percorsi, corridoi, scale, ecc., collegamenti virtuali), le tipologie architettoniche basate sui percorsi (musei, mercati, stazioni..) e le soluzioni nelle tipologie complesse (stadi, ospedali, ecc.)
- Il dimensionamento spaziale e le scelte strutturali
- Il Rapporto esterno-interno: l'uso degli elementi base (finestra, porta, balcone, loggia, cortile, ecc....)
- L'organizzazione funzionale e distributiva degli edifici specialistici che saranno oggetto dell'esercitazione illustrata attraverso progetti realizzati; saranno analizzati in base a: collocazione, elementi ordinatori, distribuzione, struttura, uso dei materiali, percezione spaziale
- L'espressione del modello culturale: l'architettura in Olanda e Belgio

4 - MODALITÀ DI VERIFICA E D'ESAME

La verifica dell'apprendimento dei contenuti della disciplina avverranno parallelamente allo sviluppo del progetto svolto per il Laboratorio III attraverso una verifica diretta del docente di ogni fase del laboratorio corrispondente alle varie scale dimensionali

La frequenza del laboratorio è obbligatoria e soggetta a firma di presenza.

5 – BIBLIOGRAFIA ESSENZIALE

- Breschi, E. Martera (a cura di) **Lo Spazio della Contaminazione**, Alinea Firenze, 2004
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- **La Città di Iatta**, Paolo Desideri, Meltemi, Roma 2002
- **S.M.L.XL.**, R. Khoolas e B. Mau, 010 Publisher, Rotterdam 1995
- **This is tomorrow – Avanguardie e architettura contemporanea**, L. Prestinenza Puglisi, Testo e imagine, Torino 1999
- **Pensare architettura**, P. Zumthor, Electa, Milano 2003
- **Storie di architettura attraverso i sensi. Nebbia, aurorale, amniotico.....**, Anna Barbara, Bruno Mondadori, Milano 2000.
- **I Caratteri Distributivi e l'organizzazione degli interni**, G. Bricarello, Libreria UTET, Torino 2000.
- **Da cosa nasce cosa**, B. Munari, Ed. Laterza, Bari 2002

IUAV LABORATORIO DI PROGETTAZIONE ARCHITETTONICA 1
CORSO DI "CARATTERI DISTRIBUTIVI DEGLI EDIFICI"
A.A. 2009 2010
PROF. RAFFAELLA LAEZZA
 COLL. ALESSANDRO SAMMARTINI

OBIETTIVI FORMATIVI

ABSTRACT

Title of course: IUAV GROUND PAVILION

This course will investigate the principles of architectural design through the definitions of MEASURE, SCALE, FORM-GRID. At the same time the course aims to suggest new words and concepts, to understand the fundamental process of formalization of the architecture. The four key words GROUND STRUCTURE, ENTER, SKIN, make up a quartet that allows to rethink the architecture in its analysis and design. To use new and at the same time, traditional words, for students of architecture, means rethinking the vocabulary of architectural spaces. Synthetically:

GROUND: starting from the idea of territory like a database for a building, the natural ground is origin of the spatial code: as a suggestion of forms, potential spatiality of nature evoke the relationship architecture-nature. The ground is a key element: analysis of its rule is to understand the natural patterns, the code vectorial of architecture and a new urban geometry. Is away to read the context, as natural morphing. As a filter, the concept of ground creates an internal critic operation to the words: measure, scale, form-grid.

STRUCTURE: to understand the spatial order, bidimensional and tridimensional through the construction's principles.

ENTER: concern the distribution. To conceive the internal space as the set of spaces of being and spaces of crossing.

SKIN: limits of a building between inside and outside, light and dark. To investigate his role, his materials, and his iconic power.

Every word of the quartet is closely connected with each other within a process-creation instead of evolving creative phases where one follows the other.

Through the keywords and the design process, together, the student can absorb the concepts of space, size, scale, distribution.

Like a new category of the thinking of architecture a ground-project is also to propose, at the students, a critical condition in the contemporary debate. The thesis is that is not enough to use, in the contemporary debate about the relation architecture-nature, the technical words like ECO, SUSTAINABLE, EKO-TECH. Where are their relations with internal, ordinary, code of architecture?

The thematic is the project of an expositive pavilion nominated "IUAV GROUND PAVILION" as a spatial matrix. Focused in the complexity of a fair's system contest.

COLLOCAZIONE NEL PROGETTO FORMATIVO

Titolo del corso: IUAV GROUND PAVILION

In continuità con il Laboratorio di progettazione architettonica, il corso "Caratteri tipologici e distributivi degli edifici" concerne i fondamenti del progetto di architettura. Il corso vuole introdurre gli studenti ad un pensiero ordinato e contemporaneamente critico. Recentemente la pratica architettonica, gli insegnamenti e la conoscenza si sono

trasformati attraverso le tecnologie della costruzione, della comunicazione e dell'informazione: questo ha portato a cambiare il significato del fare architettonico. Il corso vuole indirizzare gli studenti ai mutamenti partendo da un primo necessario avvicinamento ai principi della progettazione architettonica. Si propone come necessaria l'acquisizione di un metodo progettuale impostato sulla connessione di gesti compositivi e parole chiave. Queste ultime sono: 3+4 :

MISURA SCALA MODULO e GROUND STRUCTURE ENTER SKIN.

La prima trilogia struttura il pensiero architettonico e conduce alla conoscenza dei suoi principi spaziali, al loro controllo misurale, scalare, normativo. La seconda quadrilogia suggerisce concetti per comprendere il processo di formalizzazione dell'architettura basato sulla successione, per fasi, di gesti compositivi. In particolare la parola GROUND introduce alla relazione architettura-principi naturali, attraverso la lettura della linea terra come piano d'appoggio dell'architettura e come potente archivio di pattern figurativi spaziali. L'incontro tra gli spazi geometrici cartesiani della tradizione architettonica MISURA SCALA MODULO con le geometrie vettoriali che governano le forme della natura aprono il progetto a una ricerca fondativa e innovativa insieme.

Comprendere i "caratteri tipologici e distributivi degli edifici" necessita un lavoro sul piano progettuale dove concetti e metodo, posti entro un pensiero ordinato, permettono di acquisire conoscenza e idee in modo da formare la propria identità e personalità verso un fare autonomo.

Il corso ha carattere preminentemente progettuale: vuole inoltre introdurre lo studente alla conoscenza di alcuni "tipi" significativi della storia dell'architettura. Questo spinge l'indagine progettuale ad una prima consapevolezza storica ed a capire il suo legame critico, con il progetto d'architettura.

Lezioni, esercitazioni, incontri settimanali, partecipazione ad un blog fatto esclusivamente per il corso, condurranno al progetto di un piccolo padiglione : "IUAV GROUND PAVILION". Esso costituisce la matrice di un più ampio spazio fieristico.

PROGRAMMA DEL CORSO

CONTENUTI

Il tema: IUAV GROUND PAVILION

Sulla base delle stesse misure e geometrie fornite nei corsi progettuali del Laboratorio di Progettazione 1 il corso vuole porsi in continuità. Richiede di approfondire, attraverso il controllo delle fasi di un processo progettuale, temi misurali, scalari, spaziali e strumentali per il progetto di un piccolo padiglione espositivo. Contemporaneamente suggerisce altre categorie, che permettono di approfondire la relazione originaria di architettura-natura.

MISURA | SCALA | MODULO e GROUND | STRUCTURE | ENTER | SKIN

Processo progettuale :

FASE 1 plastici-schizzi GROUND

FASE 2 plastici-disegni

FASE 3 plastici-disegni STRUCTURE

FASE 4 plastici-disegni

FASE 5 plastici-disegni ENTER

FASE 6 plastici-disegni

FASE 7 plastici-disegni SKIN

FASE 8 plastici-disegni

Nel corso saranno trasmessi gli aspetti strumentali del disegno digitale, del plastico manuale ai fini di una progettazione che sia in continua osmosi con la verifica plastica, tridimensionale dell'oggetto architettonico.

Lezioni

15 febbraio

Ore 14 Presentazione Corso. Titolo lezione: **"GEOMETRIA CARTESIANA/GEOMETRIA VETTORIALE. ARCHITETTURA DELLA LINEA TERRA |GROUND"**

Ore 15,15 **"CARATTERE TIPOLOGIA DISTRIBUZIONE? : UNA DEFINIZIONE "**

22 febbraio

Ore 14 **" MISURARE, GEOMETRIZZARE, STRUTTURARE . NATURE POWER "**

Ore 15,15 SEMINARIO **"IUAV GROUND PAVILION 1. SCALA MISURA MODULO. PROCESS"**

TALKS, VIDEO, MODELING TIME, SOFTWARE TIME

1 marzo

Ore 14 **"DE-FORMARE: BIDIMENSIONALE-TRIDIMENSIONALE"**

Ore 15,15 SEMINARIO **"IUAV GROUND PAVILION 2.MODULO-GRID"**

TALKS, VIDEO, MODELING TIME, SOFTWARE TIME

8 marzo

Ore 14 **"GROUND | STRUCTURE | ENTER| SKIN"**

Ore 15,15 SEMINARIO **"IUAV GROUND PAVILION 3.VOLUME-PIANTA"**

TALKS, VIDEO, MODELING TIME, SOFTWARE TIME

15 Marzo

Ore 14 **"STRUTTURA CARTESIANA-STRUTTURA VETTORIALE . CECIL BALMOND. STRUCTURE"**

Ore 15,15 SEMINARIO **"IUAV GROUND PAVILION 4"**

TALKS, VIDEO, MODELING TIME, SOFTWARE TIME

22 marzo

Ore 14 **" ENTER CARTESIANO-ENTER VETTORIALE.SPAZIO"**

Ore 15,15 SEMINARIO **"IUAV GROUND PAVILION 5"**

TALKS, VIDEO, MODELING TIME, SOFTWARE TIME

29 marzo

Ore 14 **" SKIN CARTESIANA – SKIN VETTORIALE.LUCE"**

Ore 15,15 SEMINARIO **"IUAV GROUND PAVILION 6"**

TALKS, VIDEO, MODELING TIME, SOFTWARE TIME

12 aprile

Ore 14 **"GIUSEPPE TERRAGNI E LA CONOSCENZA CRITICA NEL PROGETTO D'ARCHITETTURA"**

Ore 15,15 SEMINARIO **"IUAV GROUND PAVILION 7"**

TALKS, VIDEO, MODELING TIME, SOFTWARE TIME

19 aprile

Ore 14-17 SEMINARIO **" IUAV GROUND PAVILION 1-8 "**

26 aprile

Ore 14-17 OPEN CRITIC, VISITING PROFESSOR

MODALITA' D'ESAME

Requisiti: partecipazione obbligatoria, consegne obbligatorie, che nel loro insieme costruiscono una valutazione finale.

Il lavoro sarà individuale.

TESTI DI RIFERIMENTO

Link e Bibliografia saranno dati alla fine di ciascuna lezione .

Saranno trasmesse sistematicamente le lezioni e le esercitazioni al fine di offrire una possibilità di continuo approfondimento di quanto fatto a lezione.

Blog del corso: <http://raffaellalaezza-caratteritipologici.blogspot.com/>

RICEVIMENTO

Su appuntamento da concordare alla fine di ciascuna lezione o attraverso:

blog <http://raffaellalaezza-caratteritipologici.blogspot.com/>



UNIVERSITÀ DEGLI STUDI DI CATANIA
Facoltà di Ingegneria

Nome insegnamento:	Caratteri Tipologici e Morfologici dell'Architettura
Corso di studio:	Laurea Magistrale in Ingegneria Edile-Architettura
Anno di corso:	4°
Semestre:	1°
CFU:	9
Ore di didattica in aula:	90
Settore scientifico disciplinare (SSD):	ICAR/14
Docente:	Prof. ing. Gaetano Sciuto
Programma:	
<p>1. Le concezioni del tipo edilizio nella cultura architettonica. Attuali indirizzi nella ricerca tipologica. Sul concetto di tipologia architettonica. L'operatività delle indagini tipologiche progettuali per il nuovo o il recupero.</p> <p><i>Riferimenti bibliografici</i></p> <ul style="list-style-type: none"> - M. Rebecchini, <i>Attuali indirizzi nella ricerca tipologica</i>, in Rassegna dell'Istituto di Architettura e Urbanistica, Università di Roma, Facoltà di Ingegneria, Istituto di Architettura e Urbanistica, a. II, n. 6, dicembre 1966 - S. Muratori, <i>Studi per una operante storia urbana di Venezia</i>, Palladio, a. IX, 1959, III-IV Luglio-Dicembre - G.C. Argan, <i>Sul concetto di tipologia architettonica</i>, in Progetto e Destino, Ed. Il Saggiatore, Milano 1977. - voce tipologia in EUA, Istituto Geografico De Agostani, Novara 1980. - G. Caniggia, voce tipo, in DEAU, Istituto Editoriale Romano, 1968. <p>2. I tipi edilizi come opera e linguaggio di una collettività e come processualità tipologica. Varianti sincroniche e varianti diacroniche. I processi di produzione delle forme e la morfologia urbana. Metodi di creazione degli oggetti edilizi: autocoscienza e non autocoscienza. Iter conoscitivo per il patrimonio edilizio storico.</p> <p><i>Riferimenti bibliografici</i></p> <ul style="list-style-type: none"> - P. Maretto, <i>Realtà naturale e realtà costruita</i>, Alinea Editrice, Firenze, 1993, pp. 144-209 - C. Fianchino, G. Sciuto, <i>Il processo tipologico nella ricostruzione delle città della Sicilia Orientale</i>, in «Quaderno 21 del Dipartimento di Architettura e Urbanistica dell'Università degli Studi di Catania», Gangemi Editore, Roma, 2002. - C. Fianchino, G. Sciuto, G. Patti, A. Cataldo, <i>Ipotesi per un manuale di recupero dell'edilizia di base</i>, in Atti del Convegno Internazionale «Le tradizioni del costruire e il riuso dei centri storici: il riuso del centro storico di Noto», Noto 4-5 Ottobre 2002, Ed. Il Lunario, Enna, 2006. <p>3. Tipi edilizi di base e loro evoluzione tipologica. Legge dei successivi raddoppi. Tipi edilizi monofamiliari. Tipi edilizi plurifamiliari. Tipi misti. Gli insediamenti a corte: il tipo, il tessuto e il processo di mutazione. Impianto lottizzativo: tessuto edilizio di base e tessuti derivati. Il tessuto urbano come tessuto aggregativo edilizio, individuazione dei percorsi e formazione degli isolati. Esemplicazioni di tessuti urbani nelle città di fondazione e ricostruzione siciliane.</p> <p><i>Riferimenti bibliografici</i></p> <ul style="list-style-type: none"> - G. Caniggia, G.L. Maffei, <i>Lettura dell'edilizia di base</i>, Saggi Marsilio, Venezia, 1995, pp.75-122 - C. Fianchino, <i>Tipi edilizi misti nella Messina dell'Ottocento</i>, Dipartimento di Rappresentazione e Progetto dell'Università di Messina, Rassegna di Studi e Ricerche, n. 2, 1997, Sicania, Messina, 1997, pp. 119-140 - C. Fianchino, <i>Tessuto e tipi edilizi della ricostruzione post-terremoto nella Sicilia del Settecento</i>, in Quaderno 18 Supplemento, Dipartimento di Architettura e Urbanistica, Università di Catania, Gangemi Editore, Roma, 1999, pp.1-31 - C. Fianchino, G. Sciuto, <i>Impianti lottizzativi a corte nella ricostruzione della città di Catania</i>, in «Il tipo edilizio e la riqualificazione delle periferie urbane - Documenti per un dibattito», a cura di R. Baraldi, N. Maturo, L. Mollo, Napoli 2003. - G. Caniggia, <i>Analisi tipologica: la corte matrice dell'insediamento</i>, in Ragionamenti di tipologia, Alinea, 	



UNIVERSITÀ DEGLI STUDI DI CATANIA

Facoltà di Ingegneria

Firenze, 1997

4. L'edilizia specialistica. Il palazzo: origini, evoluzioni, esemplificazioni in varie realtà urbane; zone di strutturazione architettonica; modelli di organizzazione spaziale.

Riferimenti bibliografici

- G. Caniggia, *L'edilizia specialistica*
- C. Fianchino, *Tessuti e tipi edilizi...*, op.cit.
- G. Dato, *La città di Catania. Forma e struttura*, Officina, Roma, 1983, pp. 47-104

5. Caratteri morfologici e tecnico-costruttivi delle fabbriche tradizionali. I materiali lapidei di origine vulcanica. Ciclo produttivo. Principi costruttivi e modalità di posa in opera. Sistemi di ancoraggio. Innovazione nell'uso dei materiali lapidei. Espressività dei rivestimenti lapidei. Elementi di fabbrica ed elementi costruttivi funzionali della tradizione costruttiva.

Riferimenti bibliografici

- G. Sciuto, *La pietra lavica nell'architettura*, Ed. Il Lunario, Enna, 2002.
- G. Sciuto, *I rivestimenti lapidei. Modernità nella tradizione*, Ed. Il Lunario, Enna, 2006.

6. Le facciate ventilate. Caratteristiche funzionali. Prestazioni invernali ed estive. Strati funzionali. La normativa italiana.

Riferimenti bibliografici

- G. Sciuto, *I rivestimenti lapidei. Modernità nella tradizione*, Ed. Il Lunario, Enna, 2006.

7. I sistemi di rivestimento a doppia pelle. Tipologie costruttive e prestazioni. Origini e vantaggi. Elementi costitutivi e classificazione. Le vetrate continue: schemi di posa e sistemi di ancoraggio; fissaggio dei pannelli vetrati e giunti. Sistemi solari passivi: serra solare e muro Trombe

Riferimenti bibliografici

- C. Schittich, G. Staib, D. Balkow, M. Schuler, W. Sobek, *Atlante del vetro*, Ed. UTET, Torino, 1999.
- T. Herzog, R. Krippner, W. Lang, *Atlante delle facciate*, Ed. UTET, Torino, 2005.
- G. Sciuto, *Modelli progettuali per la sostenibilità edilizia*, Ed. Anabiblo, Roma, 2010.

8. L'integrazione del sistema impiantistico nell'apparecchiatura costruttiva. Definizione e classificazione degli impianti. Sviluppo impiantistico e modalità di integrazione. Attrezzabilità degli elementi di fabbrica. Chiusure orizzontali attrezzate. Esempi di edifici con integrazione impiantistica. Elementi costruttivi per l'attrezzabilità: pareti attrezzate, controsoffitti, pavimenti sopraelevati.

Riferimenti bibliografici

- G. Sciuto, *L'integrazione del sistema impiantistico nella apparecchiatura costruttiva*, in Documenti del Dipartimento di Architettura e Urbanistica n. 12, Catania, 1995.

Risultati di apprendimento previsti:

Conoscenza approfondita delle modalità di formazione e trasformazione del tessuto edilizio e dei tipi edilizi di base, delle tecniche costruttive e dei materiali tradizionali, finalizzando il tutto alla riqualificazione del patrimonio edilizio esistente.

Testi di riferimento:

- M. Rebecchini, *Attuali indirizzi nella ricerca tipologica*, in Rassegna dell'Istituto di Architettura e Urbanistica, Università di Roma, Facoltà di Ingegneria, Istituto di Architettura e Urbanistica, a. II, n. 6, dicembre 1966
- S. Muratori, *Studi per una operante storia urbana di Venezia*, Palladio, a. IX, 1959, III-IV Luglio-Dicembre
- G.C. Argan, *Sul concetto di tipologia architettonica*, in Progetto e Destino, Ed. Il Saggiatore, Milano 1977.
- P. Maretto, *Realtà naturale e realtà costruita*, Alinea Editrice, Firenze, 1993, pp. 144-209
- G. Caniggia, G.L. Maffei, *Lettura dell'edilizia di base*, Saggi Marsilio, Venezia, 1995, pp.75-122
- G. Caniggia, *Analisi tipologica: la corte matrice dell'insediamento*, in Ragionamenti di tipologia, Alinea, Firenze, 1997
- C. Fianchino, G. Sciuto, *Il processo tipologico nella ricostruzione delle città della Sicilia Orientale*, in «Quaderno



UNIVERSITÀ DEGLI STUDI DI CATANIA

Facoltà di Ingegneria

<p>21 del Dipartimento di Architettura e Urbanistica dell'Università degli Studi di Catania», Gangemi Editore, Roma, 2002.</p> <ul style="list-style-type: none"> - C. Fianchino, G. Sciuto, G. Patti, A. Cataldo, <i>Ipotesi per un manuale di recupero dell'edilizia di base</i>, in Atti del Convegno Internazionale «Le tradizioni del costruire e il riuso dei centri storici: il riuso del centro storico di Noto», Noto 4-5 Ottobre 2002, Ed. Il Lunario, Enna, 2006. - C. Fianchino, <i>Tipi edilizi misti nella Messina dell'Ottocento</i>, Dipartimento di Rappresentazione e Progetto dell'Università di Messina, Rassegna di Studi e Ricerche, n. 2, 1997, Sicania, Messina, 1997, pp. 119-140 - C. Fianchino, <i>Tessuto e tipi edilizi della ricostruzione post-terremoto nella Sicilia del Settecento</i>, in Quaderno 18 Supplemento, Dipartimento di Architettura e Urbanistica, Università di Catania, Gangemi Editore, Roma, 1999, pp.1-31 - C. Fianchino, G. Sciuto, <i>Impianti lottizzativi a corte nella ricostruzione della città di Catania</i>, in «Il tipo edilizio e la riqualificazione delle periferie urbane – Documenti per un dibattito», a cura di R. Baraldi, N. Maturo, L. Mollo, Napoli 2003. - G. Dato, <i>La città di Catania. Forma e struttura</i>, Officina, Roma, 1983, pp. 47-104 - C. Schittich, G. Staib, D. Balkow, M. Schuler, W. Sobek, <i>Atlante del vetro</i>, Ed. UTET, Torino, 1999. - T. Herzog, R. Krippner, W. Lang, <i>Atlante delle facciate</i>, Ed. UTET, Torino, 2005. - G. Sciuto, <i>L'integrazione del sistema impiantistico nella apparecchiatura costruttiva</i>, in Documenti del Dipartimento di Architettura e Urbanistica n. 12, Catania, 1995. - G. Sciuto, <i>La pietra lavica nell'architettura</i>, Ed. Il Lunario, Enna, 2002. - G. Sciuto, <i>I rivestimenti lapidei. Modernità nella tradizione</i>, Ed. Il Lunario, Enna, 2006. - G. Sciuto, <i>Modelli progettuali per la sostenibilità edilizia</i>, Ed. Anabiblo, Roma, 2010.
Metodi di valutazione:
Stesura di elaborati progettuali e prova orale
Propedeuticità:
Nessuna

della mobilità urbana ed extraurbana; riequilibrio del deficit di attrezzature e servizi; rifondazioni delle attività produttive.

3. Lo svolgimento del corso

Il corso sarà svolto attraverso lezioni teoriche, esercitazioni, seminari ed esperienze progettuali di laboratorio intese come workshops.

4. Il tema del corso per l'anno accademico 1996-97.

Il tema del corso è il recupero degli spazi e degli edifici abbandonati nel centro storico di Napoli ed, in particolare, il luogo della sperimentazione progettuale è l'intera circoscrizione Mercato- Pendino. All'interno di una prospettiva generale, definita attraverso i piani particolareggiati, i progetti sono individuati nell'ambito del "Risanamento ambientale", della "Viabilità e Parcheggi" e delle "Attrezzature e servizi". Dalla progettazione a scala urbana dei quartieri, attraverso i piani di recupero e particolareggiati, si passerà alla definizione dei progetti esecutivi degli interventi, previsti dai piani stessi.

5. I seminari didattici per l'anno accademico 1996-97.

Durante il corso saranno svolti otto seminari didattici articolati nei quattro settori: Risanamento ambientale, riequilibrio della residenza, attrezzature e servizi, viabilità parcheggi e cavità, per poter mettere a confronto i vincoli, le caratteristiche, le risorse, le problematiche del recupero e le soluzioni previste per i quartieri Mercato e Pendino con gli altri quartieri del Centro Storico di Napoli.

6. Le esercitazioni.

Gli studenti svolgeranno temi progettuali di proprio interesse all'interno

del piano particolareggiato della Circoscrizione Mercato-Pendino. L'iter progettuale deve essere completo e comprendere: a) il programma dell'intervento; b) il progetto preliminare; c) il progetto esecutivo.

Bibliografia:

- B. Zevi, *Architettura, concetti di una contro storia*, Tascabili Economici Newton, Roma 1994;
- B. Zevi, *Architettura della modernità*, Tascabili Economici Newton, Roma 1994;
- B. Zevi, *Ottocento Novecento*, Tascabili Economici Newton, Roma 1994;
- G. Dorfles, *L'architettura moderna*, Garzanti Milano 1989;
- G. Dorfles, *Architettura Ambigua*. Dal Neobarocco al postmoderno, Dedalo, Bari 1988;
- A. Loris Rossi, Emma Buondonno, *I giardini storici di Napoli*, Tascabili Economici Newton, Roma 1995;
- C. De Seta, *Città verso il 2000*, Mondadori, Milano 1990;
- R. De Fusco, *Storia dell'architettura contemporanea*, Laterza, Bari 1988;
- M. Locci, A.L. Rossi, *Concretezza dell'utopia*, ed. Testo&Immagine, Torino 1997.

CARATTERI TIPOLOGICI E MORFOLOGICI DELL'ARCHITETTURA

Prof. Francesco Decimo

Campo d'applicazione della disciplina sarà il centro antico di Napoli; Il corso è incentrato sull'analisi del rapporto tra tipologia edilizia e struttura urbana; questione che, come è stato spesso osservato, consente di riunire in un unico procedimento di indagine e di conoscenza, l'ar-

chitettura dei singoli elementi edilizi e la struttura che definisce la forma della città. L'analisi, sia pure per campionature, dei tipi edilizi e di alcune fasi della formazione della forma urbana, permette infatti, in questo tipo di procedimento, di individuare il rapporto dialettico tra la tipologia edilizia e l'insieme dei vincoli esercitato dalla struttura urbana. Un legame la cui conoscenza ci permette di avvicinare la "caratteristica dominante e significativa del fenomeno urbano, nella sua concretezza fisica di totalità edificata" (C. Aymonino). Il tipo edilizio, proprio in virtù di questo rapporto, partecipa profondamente alla storia: lungi dall'essere un "universale storico", cambia le sue caratteristiche morfologiche a seconda del luogo e del momento considerato; e può essere visto come un elemento elaborato per rispondere a determinate necessità lungo un periodo di tempo costante. Conseguentemente la città può essere vista come una forza nata da numerosi e diversi momenti di crescita, ognuno dei quali è caratterizzato da una costanza di caratteri nei suoi elementi costitutivi dovuto alla necessità di rispondere a determinati bisogni lungo periodo di tempo definito. Spesso, però, il sistema urbano è una creazione che non può essere ricondotta a un unico meccanismo strutturale. Il sistema urbano, in altri termini, può essere un'opera complessa che si è costruita nel tempo sovrapponendo strutture e disegni diversi; le sostituzioni e le successive erosioni, gli ampliamenti e l'affermarsi di nuovi sistemi di relazioni possono farne una realtà stratificata e molteplice, all'interno della quale sono riscontrabili diversi principi d'ordine e razionalità. E' evidente, allora, come una lettura sincronica di un sistema del genere lascerebbe fuori una molteplicità di dati estremamente si-

gnificativi. E' il caso del centro storico di Napoli; qui, infatti, troviamo compresenti una molteplicità di sistemi architettonici costruiti nel corso dei secoli, ognuno dei quali attraverso la propria originalità ha stabilito un rapporto dialettico con la struttura urbana fondata sull'impianto ippodameo. Per secoli tutta l'articolazione spaziale degli organismi architettonici del centro antico di Napoli è stata condizionata da questo fondamentale rapporto. E' evidente, allora, che non è possibile comprendere questo sistema se non attraverso la sua evoluzione storica. Essa sola ci consente di risolvere una struttura nelle sue componenti in quanto ce la presenta nel loro porsi nel tempo; bisogna risalire alla sua forma originaria, spiegare i caratteri da essa assunti in questa fase della sua esistenza, poi dimostrare come mediante i successivi interventi architettonici si sia sviluppata, complicata e infine sia diventata quel che è nel momento considerato. Ora si comprende facilmente che importanza rivesta la determinazione del punto di partenza. Secondo un principio cartesiano della catena delle verità scientifiche, il primo anello assume un ruolo preponderante. Esiste alla radice dell'ambiente napoletano una serie di fatti essenziali che dominano ancora l'intera struttura urbana. Come salde cornici essi serrano la forma urbana che non può sottrarsi senza autodistruggersi. Sono, per così dire, l'ossatura del sistema. Il corso ha inizio, pertanto, con la ricostruzione della situazione della nostra area all'inizio del processo di formazione; in questa fase, è noto, troviamo l'impianto ippodameo, il quale determina, con elementare chiarezza, il grande congegno spaziale che definirà nel tempo l'unità dell'insieme. Al suo interno, nel corso dei secoli, nasceranno, i vari interventi, una serie di sapienti

ed attente eccezioni, di compressioni e di dilatazioni improvvise e una proliferazione ricchissima di elementi volumetrici e plastici, caratterizzati per il loro rispetto dei vincoli urbani e nello stesso tempo del loro superamento. Definito l'impianto di partenza, viene individuato un insieme discreto di edifici architettonici che copre quattrocento anni della storia urbanistica della Napoli greco-romana; la ricerca verrà impegnata nel processo di paragone e sovrapposizione selettiva di queste forme individue. Per la determinazione del tipo si elimineranno i caratteri *specifici dei singoli edifici* e si conserveranno tutti e soli gli elementi che compaiono in tutte le unità dell'insieme, elementi comuni scaturiti dal modo con cui questi edifici, nel corso dei secoli, hanno considerato il loro rapporto nei confronti della struttura greco-romana. Scopo della ricerca è l'elaborazione di questi dati per tentare di individuare alcuni caratteri fondamentali della struttura urbana che sottende la forma della nostra area. Per stabilire alcuni elementi di certezza su cui fondare un criterio con il quale è possibile separare gli elementi impropri del sistema da quelli stabiliti e significativi; e infine, per individuare alcuni principi in grado di guidare il progetto di un eventuale intervento architettonico. Le varie fasi del lavoro verranno sostenute da lezioni che chiariranno le premesse teoriche delle operazioni proposte. Dove sarà possibile, il corso si avvarrà di contributi esterni con apporti che approfondiranno temi specifici.

CARATTERI DISTRIBUTIVI DEGLI EDIFICI

Prof. Carla De Feo

Il programma, in risposta a quanto pre-

visto dal Nuovo Ordinamento della Facoltà di Architettura approvato nel Luglio del 1992, mira ad approfondire criticamente il processo della progettazione, nella consapevolezza dell'esigenza di misurare lo spazio architettonico e urbano conformandolo, perché al corretto rapporto tra forma, struttura e significato, corrisponda una coerente logica distribuzione delle funzioni. Lo studente sarà guidato alla comprensione delle relazioni, dalle più semplici alle più complesse, che, per effetto della distribuzione degli spazi, si realizzano all'interno dell'organismo architettonico e fra gli organismi architettonici e la città. Un ciclo di lezioni teoriche fornirà i "riferimenti" della disciplina e costituirà la base per l'esercitazione conclusiva. Questa consisterà nell'analisi di un progetto opportunamente scelto, nella quale l'allievo mostrerà di saper leggere, con giusto atteggiamento critico, le relazioni che si stabiliscono tra le concezioni formali ed i requisiti tecnico-organizzativi che concorrono a rendere l'opera rispondente al programma per il quale è prevista.

Argomenti e tematiche delle lezioni teoriche:

1 - *Il ruolo dell'architetto nella società e la cultura del progetto:*

- cenni storici e riferimenti alle figure più significative
- l'architetto oggi: compiti e prospettive all'interno della crisi di un ruolo; premesse di una nuova professionalità in Europa;

2 - *Il progetto di Architettura: strumenti, riferimenti, finalità:*

- elementi/guida nel progetto
- in progetti significativi presi ad esempio, deduzione degli elementi/guida, dalla lettura dei documenti grafici alla conoscenza del "pensiero"

dell'autore, sia che si tratti di un architetto del passato, vicino o lontano, che di un architetto moderno

3 - Distribuzione degli spazi e sistema di relazioni nel progetto.

- progetto e destinazione d'uso
- organizzazione delle funzioni nel progetto
- relazioni e dimensionamento degli spazi
- caratteri distributivi tradizionali ed innovativi

4 - Analisi storica dell'evoluzione dei caratteri distributivi nel progetto di architettura

- utopie e modelli
- modelli e prototipi in architettura: relazione tra funzione e forma
- evoluzione dei caratteri distributivi in alcuni edifici, privati e pubblici, a funzione specifica, in risposta al mutare delle esigenze (abitazioni, scuole, chiese, municipi, teatri, musei, ecc.)

5 - Intenzioni del progetto: lo spazio, le relazioni ed il "senso" dell'abitare

- "significato" come struttura per l'architettura
- lo spazio dell'esistenza ed il progetto di architettura
- l'edificio pubblico, espressione di valori comuni condivisi
- alcuni edifici pubblici significativi.

6 - Tra architettura e disegno della città: edifici emergenti e nuove centralità

- gli spazi pubblici e la città: distribuzioni, relazioni e senso
- la cultura urbana della trasformazione e nuovi ruoli dell'architettura
- il Disegno Urbano come progetto di

Architettura: il dibattito attuale in Europa

- alcune esperienze significative: concorsi, progetti e realizzazioni

Sugli argomenti che avranno sollecitato negli studenti un particolare interesse, verranno organizzati dibattiti e seminari tendenti ad approfondire il tema ed a riferirlo, dove necessario, alle esperienze progettuali che gli studenti affrontano negli altri corsi e, in particolare, nei laboratori di progettazione.

N.B. Al termine di ogni lezione verranno forniti agli studenti i riferimenti bibliografici specifici

Cenni bibliografici di riferimento:

- E.N.Rogers, *Il dramma dell'architetto*, in *Esperienze dell'Architettura*, Torino, 1958;
- L.Quaroni, *La torre di Babele*, Padova 1967;
- C.Norberg Schulz, *Intenzioni in Architettura*, Milano 1987;
- G.C.Argan, *Progetto e destino*, Milano 1965;
- C.Norberg Schulz, *L'abitare*, Electa Milano 1984;
- C.Norberg Schulz, *Louis I. Kahn - idea e immagine*, Roma 1980;
- D.A.U., *Architetto, Architettura, Progettazione, Progetto*;
- P. Portoghesi, *Metodi di progettazione nella storia dell'architettura*, Roma 1960;
- L.Quaroni, *Progettare un edificio. Otto lezioni di architettura*, Milano 1977.

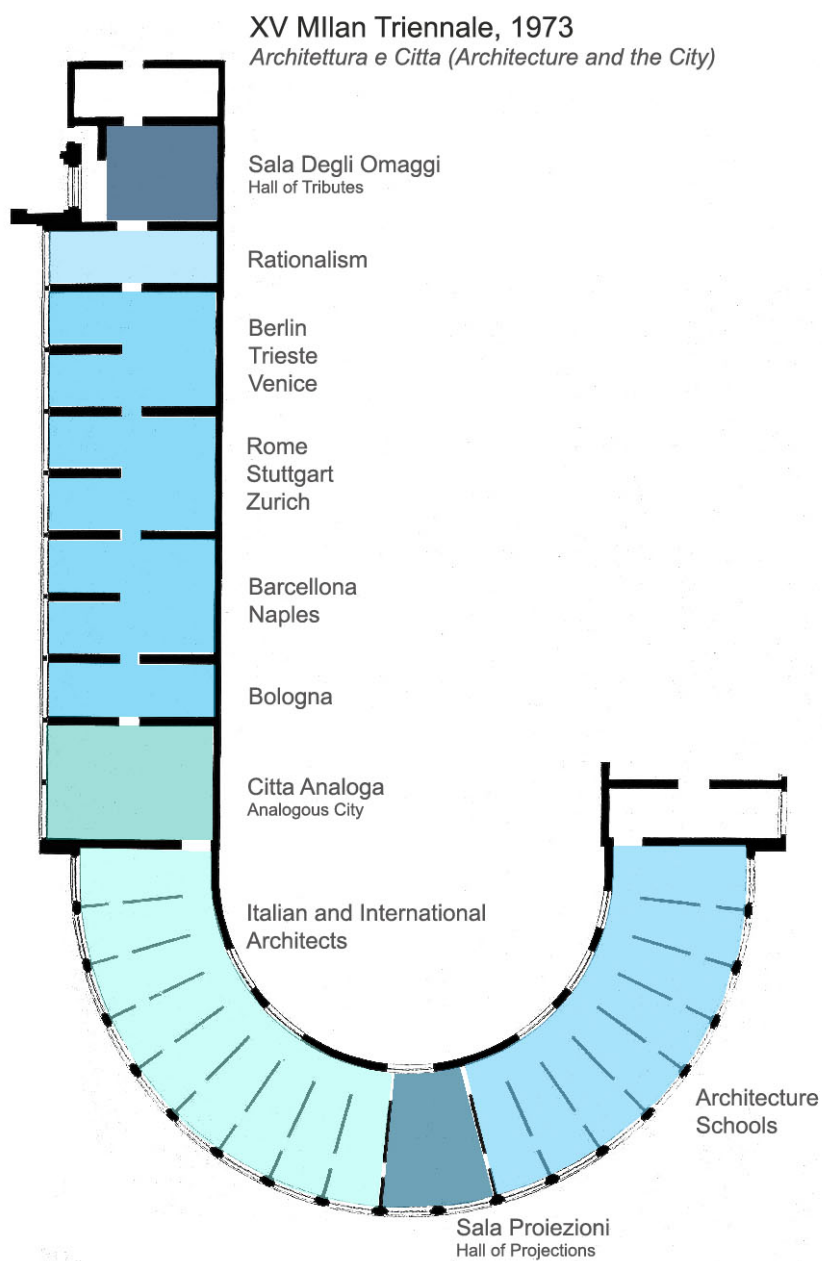
PROGETTAZIONE DEL PRODOTTO D'ARREDO

Prof. Filippo Alison

Della universale area del Design, la

APPENDIX C

Exhibit and articulation of the International section of the XV Triennale, *Architettura-Città*, 1973. (Diagram and image edited by author).



APPENDIX D

XV Triennale: International Section *Architettura-Città*, 1973; Group photo taken by Heinrich Helfestein on September 20, 1973 at 3:20, the day of the grand opening. The photo's background shows Arduino Cantafora's collage of *La Città Analoga*. (Photos from Massimo Ferrari, *Antonio Monestiroli: Opere, Progetti, e Studi di Architettura*, (Milano: Electa, 2001), 6-7.



From left to right: Richard Meier, Julia Bloomfield, Peter Karl, Vittorio Savi, Paolo Rizzatto, Antonio Monestiroli, Max Brosshard, Aldo Rossi, Arduino Cantafora, Gianni Braghieri, Bruno Reichlin, Aldo Aymonino, Fabio Reinhardt, Heinrich Helfestein, Franco Raggi, José Da Nobrega (kneeling), Claudio Maneri, Massimo Scolari, and Michael Graves.

VITA

Pasquale attended the School of Architecture at the Università degli Studi di Napoli Federico II in Italy from 1993 till 1998, and received his Bachelor of Architecture degree from Louisiana State University in 2005. He entered the Architecture and Urban Design program at Columbia University Graduate School of Architecture, Planning, and Preservation in the summer of 2005, and obtained his Master of Science degree in Architecture and Urban Design in May of 2006.

Professionally, Pasquale has practiced for the Richard Rogers Partnership while in New York City, working on the expansion and renovation of the Jacob K. Javits Center. Academically, Pasquale has taught design foundations, upper level design studios, and history of modern architecture as a Visiting Lecturer at Texas A&M, and he is now teaching as an Assistant Professor at the Louisiana Tech University School of Architecture where he also acts as the Professional Concentration Coordinator. His research interests include Italian architectural culture, history and theory of contemporary architecture, urban design, parametric and computational strategies, and form generating processes, which he also explores in his private practice PDP.it.

Mr. De Paola may be reached at the School of Architecture Louisiana Tech University, Box 3147, Ruston, Louisiana USA, 71272. Telephone: 318.257.5263 Fax: 318.257.4687. His email is pdepaola@latech.edu